

1992

An examination of linguistic politeness strategies in computer-mediated communication

Rockie Lyons Beaman
Iowa State University

Follow this and additional works at: <https://lib.dr.iastate.edu/rtd>



Part of the [Business and Corporate Communications Commons](#), and the [English Language and Literature Commons](#)

Recommended Citation

Beaman, Rockie Lyons, "An examination of linguistic politeness strategies in computer-mediated communication" (1992).
Retrospective Theses and Dissertations. 16224.
<https://lib.dr.iastate.edu/rtd/16224>

This Thesis is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Retrospective Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

An Examination of Linguistic Politeness Strategies

in Computer-Mediated Communication

by

Rockie Lyons Beaman

A Thesis Submitted to the

Graduate Faculty in Partial Fulfillment of the

Requirements for the Degree of

MASTER OF ARTS

Department: English

Major: English (Business and Technical Communication)

Approved:

Signatures have been redacted for privacy

**Iowa State University
Ames, Iowa**

1992

TABLE OF CONTENTS

CHAPTER ONE: AN OVERVIEW OF COMPUTER-MEDIATED COMMUNICATION AND A THEORETICAL APPLICATION OF POLITENESS STRATEGIES	1
	1
Computer Networked Classroom Environment	2
Flaming Within CMC	5
Situational Context of Computer Networked Environment	6
Computer Studies	10
Discourse Analysis	12
Grice's Maxims and the Cooperative Principle	17
Politeness Strategies	20
Gender	25
CHAPTER TWO: AN OVERVIEW OF THE METHODOLOGY	29
Subjects of the Study	29
Background of the Task	29
The Task	30
Types of Data Collected	31
Methods of Analysis	32
Positive and Negative Face-saving Strategies	33
CHAPTER THREE: A DISCUSSION OF THE TRANSCRIPTS AND QUESTIONNAIRE RESULTS	36
Discourse Production	37
Discussion of the Transcripts	41
Grice's Maxims	41
Positive and Negative Politeness Strategies	42
Gender	44
Discussion of the Questionnaire Results	47
Anonymity	55
Conclusion	57

BIBLIOGRAPHY	60
APPENDIX A: INSTRUCTIONS AND READING ASSIGNMENT	66
APPENDIX B: SAMPLE QUESTIONNAIRE	74
APPENDIX C: SAMPLE TRANSCRIPT	76

CHAPTER ONE: GENERAL OVERVIEW OF COMPUTER-MEDIATED COMMUNICATION AND A THEORETICAL APPLICATION OF POLITENESS STRATEGIES

With the advance of today's technology, the computer terminal has become more than just a glorified typewriter or word processor in the university classroom. In some advanced computer writing laboratories across college and university campuses where computers are networked together, computer users are creating a new mode of discourse called "interactive written discourse or the written language occurring in simultaneous terminal-to-terminal typed dialogues" (Ferrara et al. 8). Because this new emergent register, according to Ferrara, is unprecedented in nature, little research exists regarding the characteristics of this interactive written discourse (hereafter called computer-mediated communication or CMC). This thesis examines examines CMC discourse to determine whether or not participants of CMC linguistically compensate, either by using negative or positive-face saving strategies, for the absence of social cues typically enjoyed by participants of conversation. Discourse analysis will be used as a tool for examining CMC.

This chapter will examine the uniqueness of the CMC environment and provide a theoretical foundation by using Grice's Maxims and Brown and Levinson's politeness strategies as a mechanism for establishing how CMC participants maintain rational and coherent discourse.

All competent adults, according to Brown and Levinson, enter social interaction with the hope of saving face, by utilizing either "negative face: the basic claim to territories, personal preserves, rights to non-distraction" or "positive face: the positive consistent self-image or 'personality' (crucially including the desire that this self image be appreciated and approved of) claimed by interactants (61). Essentially, positive face-

saving strategies are an "expression of solidarity" whereas negative face-saving strategies are an "expression of restraint" (8).

My research addresses the unique situational context of the computer networked environment and examines how CMC participants socially interact in order to maintain coherent and rational written conversation in their attempt to save face. In addition, I am also examining whether females exhibit a higher frequency of positive or solidarity face-saving strategies than males.

For a theoretical foundation, I am using Grice's Maxims as a means for establishing the parameters of meaningful verbal discourse. After establishing the boundaries of meaningful conversation, I will then use Brown and Levinson's categories of positive and negative face-saving strategies for determining how students linguistically compensate for the absence of social cues.

Specifically, the focus of my study examines students' use of positive and negative face-saving strategies, defined by Brown and Levinson, within the situational context of a computer networked environment. For purposes of this study, I will examine 58 pages of transcripts that were collected during two separate freshman composition computer-based classrooms to determine whether or not 46 freshmen employed positive or negative face-saving strategies while using pseudonyms with their peers during a 50-minute classroom period. In addition, I will examine the transcripts to determine if patterns emerge regarding females' use of positive face-saving strategies compared with positive face-saving strategies used by males.

Computer Networked Classroom Environment

Initially computer networks were built for the business world, not for teaching in the classroom; nonetheless, educators have tapped into this bastion of technology and have

begun considering the potential opportunities for utilizing this technology from a pedagogical perspective (Batson 247). During the past decade, a new movement, called the rhetoric of technology involving computer use, has become part of the majority of college classrooms (Hawisher and Selfe 7). In fact, "in 1986, over 95 percent of junior high schools, over 98 percent of high schools, and nearly all colleges and universities in the United States used computers for instruction (U.S. Department of Commerce in Faigley 291).

Included in the rhetoric of technology is a progression beyond word processing capabilities; computers are networked with one another so that participants compose and engage in "real time" conversation with one another through the use of computer screens as the medium of communication. Each student sits at a computer terminal and types private messages which then become public by pressing a key that transfers the private message into a public format. These messages are sent at the participant's command and function as written conversation (Peyton 16).

Description of the networked computer environment

The networked computer environment is unique in its physical description as well as in its social psychological aspects, something which is important for researchers of CMC to understand.

Physical description A typical networked computer lab consists of 24 computer terminals on two long rectangular tables with twelve computer terminals at each table. The twelve computer terminals are situated with six on one side of the table and six computer terminals in a parallel position on the other side of the table. However, the organization and placement of CMC participants at terminals are immaterial because CMC participants have the ability to communicate with everyone in the room. While communicating with

one another, CMC participants of my study were unaware of the gender, physical location of participants, social identity, or any other social cues of their classmates.

Important social psychological considerations Some unique social psychological aspects of CMC, described by Kiesler et al., which affect the social interaction of the computer networked classroom, include the following:

(1) Time and information processing pressures

The ease of rapid communication can change the quantity or distribution of information being exchanged.

(2) Absence of regulating feedback

Traditional forms of communication such as head nods, smiles, eye contact, distance, tone of voice, and other nonverbal behaviors are absent from the computer networked environment. For some CMC participants, these absent cues can cause problems in terms of resolving coordination problems such as telling a person that you already know the information that is being shared or explained (Kraut, et al. in Kiesler 333).

(3) Dramaturgical weakness

Within the CMC environment, non-verbal behavior, including behavior such as a participant occupying the head seat, speaking loudly, staring, touching, or gesturing, no longer exists. Consequently, the absence of these nonverbal cues allows the possibility for bargaining or renegotiating the social influence of participants between CMC participants.

(4) Few status and position cues

The possibility for a vertical hierarchy or egalitarian environment is enjoyed by CMC participants because the software for electronic communication is blind to social status. In other words, CMC participants enjoy the possibility of participating equally in social interaction because status that displays power and prestige is no longer visible.

(5) Social anonymity

The potential for depersonalizing messages in CMC is addressed in the literature; although studies are inconclusive as to whether or not this phenomena is pervasive.

In addition, according to Finholt et al. (Carnegie Mellon), CMC exhibits five unique characteristics:

- (1) Overcomes physical barriers.
- (2) Enables asynchronous and fast communication.
- (3) Allows communication to be sent to more than one individual at the same time.
- (4) Enables efficient communication over long distances.
- (5) Reduces social cues (294-295).

Flaming Within CMC

Presently no book of etiquette that prescribes appropriate linguistic strategies for CMC exists. One aspect of anonymity is the possibility of flaming, a depersonalizing and often inflammatory term, which occurs when participants abandon any social courtesies and often inflict derogatory insults to one another while communicating on the network. For example, participants express themselves "more strongly on the computer than one would in other communication settings" (Kiesler et al. 342). It should also be noted that flaming does not appear to be a common occurrence in CMC, but the potential for flaming raises important and interesting issues.

CMC researchers have noticed that participants tend to behave "in a more uninhibited manner than they would in face-to-face encounters" (Sproull et al. in Reid). Rice and Love suggest that "disinhibition may occur because of the lack of social control that nonverbal cues provide" (Rice in Reid). Because CMC requires a machine to transmit

messages, some people are concerned that "sometimes . . . users lose sight of the fact that they are really addressing other people, not the computer" (Kiesler et al. 334).

One example of how flaming became problematic in industry involved the Defense Communications Agency which policed its network bulletin boards to determine which messages were inappropriate or in bad taste. The second example occurred when IBM installed a networked message system and a "GRIPENET" emerged that was for the ostensible purpose of complaining against management practices and policies. These two examples display how industry has addressed or attempted to control problems associated with this new found freedom experienced by CMC participants within this new mode of communication. However, Kiesler, et al. are quick to point out that these two instances of flaming could have been the result of a lack of shared electronic discourse etiquette which is a current problem with today's networks (342).

On the other hand, CMC encourages an intimacy between participants because of the obscureness of acceptable and unacceptable boundaries of social behavior (Reid). In other words, some participants enjoy the safety of anonymity and the freedom provided within the network.

Situational Context of Computer Networked Environment

Because CMC participants do not enjoy social cues typically used by participants in social interaction, participants of CMC experience new dynamics with regard to the placement of text in time and place and the relationship between the speaker and the audience. These particular characteristics alter the traditional context of communication, as described by James Kinneavy, who believes that situational context is the heartbeat of any rhetorical activity, including communication of all types. What happens within the situational environment of CMC where the reliance on social cues is removed? *Kairos*, a

classical rhetorical term meaning the situational context, according to Kinneavy, provides a rich description regarding four integral components of time, place, speaker, and audience and explains their relationship and importance to communication. By adapting these situational elements of time, place, speaker, and audience to the computer networked environment, a closer examination of these four elements provides a general understanding of how CMC participants must address a linguistically unique situation.

Time

Within CMC, time takes on different dimensions with regard to linearity of text as typified within the historical written tradition. For example, the term "real time" involves the possibility for synchronous or simultaneous communication although participants need not even be in the same place at the same time. Consequently, according to Mark Poster, text becomes dislocated in time and space because of the possibility of spatial manipulation of text (121). For instance, text can be composed, revised, deleted, or saved in memory indefinitely by using computer technology. This capability of composing text with new dimensions or concepts of time raises interesting dilemmas with regard to the situational context of electronic discourse.

For example, the private thoughts of individuals, often still in the gestation stage, typically displaying immature and incomplete thoughts, become public in CMC (Heim in Sudol 925). Heim believes that "the formulation of electronic writing is less contemplative than writing in other elements" because often the contemplative responses become public discourse as thoughts evolve, without the deliberation that typically accompanies linear text (Heim 210). In addition, the capability of communicating with simultaneous terminal-to-terminal dialogue involves rhetor and audience in synchronous communication; consequently the inherent nature of immediate feedback affects the rhetorical nature of the

electronic discourse. My study examines how students compensate for this unique element of communicating simultaneously in a written conversation.

Place

Part of the uniqueness of the computer networked environment is that text becomes fluid in nature and intangible compared with traditional written linear text because the text is physically placed and manipulated on a machine screen. This study is examining how students linguistically compensate for this unique alteration of text because the visual cues usually extant with writing documents become textualized on a screen that removes authenticity and ownership usually associated with writers of texts. This alteration requires a new way of thinking because the traditional thinking of the writer, alone in her garret producing text, is dramatically altered when she becomes part of a public discourse with extraordinary speed and ease of production. Consequently, *kairos*, the situational context, is then altered in this computer networked environment because of this immediacy and ease of production of discourse.

My study examines how students linguistically compensate through the use of negative or positive politeness strategies for this dislocation of text in place.

Speaker

CMC participants or speakers become voices or a chain within a link of utterances which are textually displayed on a computer screen; that is, the speaker's words become part of public discourse within seconds of transmission. CMC textualizes on the computer screen the dialogic nature of speech utterances that create the situational context of this unique rhetorical computerized environment. The single voice of a writer disappears amid the voices of other writers who are communicating a network.

This new mode of human activity, involving written and oral discourse, is important to the history of language.

The history of a language . . . inevitably deals with concrete utterances (written and oral) belonging to various spheres of human activity and communication: chronicles, contracts, scientific genres, etc., [including computer-mediated communication] (my emphasis) (Bakhtin 62).

The uniqueness of CMC visualizes discourse on the computer screen in an unprecedented manner and displays characteristics of oral and written discourse simultaneously which makes it unparalleled in nature.

Style, according to Bakhtin, is an important consideration in communication (66). With regard to CMC, "The use of electronic mail, some researchers have found even promotes a 'confrontational style.' So writing without barriers can also prove to be without restraint" (Heim 209). On the other hand, Sproull and Kiesler found in their study that participants, specifically employees of a corporation, found themselves more committed to their jobs as a result of communicating over the network. In addition, Sproull and Kiesler discovered that employees spent less time with formal niceties (politeness strategies) that are typically required in face-to-face communication (Finholt et al. 295).

This study attempts to examine whether or not students linguistically compensate and exhibit a confrontational style through the use of positive or negative politeness face-saving strategies.

Audience

Typically the multiple audience of electronic discourse maintains a certain degree of social anonymity, including social status, gender and other hierarchical cues, as stated earlier. What happens to this discourse when these dramaturgical cues are missing (Kiesler

et al. 334)? Not all the evidence is in. For some participants, this egalitarian environment provides opportunity for the disempowered individual to become empowered through the electronic discourse. Conversely, the absent social cues can sometimes depersonalize the message to an alienating degree (Kiesler et al. 334). With regard to social cues, L. Sproull and S. Kiesler, in 1986, argued that social context cues do regulate communication; therefore communication behavior is affected (Mabrito 38).

Computer Studies

In 1984, Kiesler et al. described issues raised by CMC and presented the results of their empirical study that examined the difference between communicating face-to-face and communicating synchronously. They concluded that CMC displays a marked difference and that "uninhibited behavior are somewhat greater in the synchronous networked" (Mabrito 36). Siegel et al. concurred with Kiesler et al.'s results regarding uninhibited behavior, but also discovered that group consensus is more difficult to achieve in CMC; although CMC tended to be more egalitarian in nature (Mabrito 37). In 1987, Levinson et al. provided students from other countries, who were communicating via a computer network, with a hypothetical problem of solving water shortage in the world. Conclusions were that students' problem-solving skills were increased (Mabrito 30).

On the other hand, in 1986, S.R. Hiltz described a long-term computer conference design that supplemented the traditional classroom in which Hiltz's results showed that students believed the network was "more awkward to communicate with, than face-to-face instruction because of the lack of nonverbal cues" (Mabrito 31). Smith et al., in 1988, conducted an experiment regarding task-oriented, decision-making activities and indicated that "face-to-face may be a more effective mode of communication than computer conferencing for the completion of tasks" (Mabrito 38). Karen Hartman et al.'s research

(Carnegie Mellon) concurs with educational theory and research that "suggests students learn through active participation in tasks that closely represent the real-world situation in which they are embedded" and Hartman et al. believe that "CMC can facilitate these processes" (106).

In 1989, Schrinier and Rice described a study at the University of Michigan that examined students communicating on a conference system called CONFER. Their "initial findings indicate that students using this system wrote more and more often than they did in traditional settings...and are more willing to express their individual voices, to consider alternate viewpoints, and better able to reach a group consensus" (Mabrito 28).

In 1991, Selfe and Myers analyzed the discourse of Megabyte University, an electronic mail subscription list, and discovered that participants of this particular CMC network were not affected by the participants' use of pseudonyms (163). However, Selfe and Myers study did reveal that the "amount of discourse and verbal assertiveness seemed linked to male gender and high profile; however, no corresponding connection between politeness and low profile or female gender was apparent" (179).

These studies validate the important technological advances that have affected the classroom; however, none of these studies has addressed the linguistic behavior that CMC participants display on the computer network. Unfortunately, computer studies are not conclusive.

Most descriptions of computer-based conferences rely on either hand-chosen anecdotal evidence provided by conference participants or hand-selected excerpts of transcripts chosen to illustrate a particular point" (Selfe and Meyer 164).

Neither qualitative nor quantitative research have adequately addressed the interrelatedness of CMC to pedagogical issues within the classroom.

Denise Murray believes that computer conversations display similarities to speech because of the use of "active voice and personal pronouns; emotive and informal diction; hedging and vagueness (negative face-saving strategies, my emphasis); paralinguistic cues and direct quotations" (Murray in Murray 36). In addition, she believes computer conversation also displays "complex turn-taking, absence of adjacency pairs in openings and closings, and often the complete absence of openings and closing characteristics of oral conversation and written letters (Murray in Murray 37). Murray also contends that the context for composing computer conversations includes a combination of temporal, spatial, and channel characteristics peculiar to this medium (Murray 39). Poster concurs with Murray's assessment but more clearly delineates the spatial considerations of computer conversation by stating that the text is spatially dislocated in time and space (116).

Now I would like to briefly discuss the appropriateness of using discourse analytic techniques as a tool for examining CMC discourse and politeness strategies.

Discourse Analysis

Linguistic analysis encompasses a wide range of perspectives about language that include rules, structures and systems. One aspect relating to linguistics is discourse analysis which I propose to use as a tool for examining students' CMC. Deborah Tannen describes discourse analysis as uniquely heterogeneous because of its overlapping application to other disciplines (6). At least eight disciplines, including sociology, linguistics, philosophy, and psychology, are closely involved when any type of social interaction is under investigation. In other words, because discourse analysis provides richness stemming from a variety of disciplinary backgrounds, I will use discourse analysis as the primary tool for analysis.

Definition of Discourse Analysis

Although the term discourse analysis can be elusive and very ambiguous, according to Michael Stubbs, the definition involves language used in a social context above the sentence or clause level (1). Part of the ambiguous nature of discourse analysis relates to the impossibility of measuring truth conditions of propositions contained within dialogue because of the uniqueness of each situational context. For example, the logic of stating that "Italy is shaped like a boot and France is hexagonal" is acceptable to a tourist visiting Europe for the first time; however, a cartographer who must draw a map of France and Italy cannot accept the truth value of the statement (Stubbs 4). Discourse analysis is always context-related.

Limitations of discourse analysis

One limitation of discourse analysis is its inability to measure "different kinds of appropriateness" (Austin in Stubbs 4). What is appropriate for one situation may be totally inappropriate for another. It is impossible to adequately describe the illocutionary force or the intended meaning of utterances; however, Brown and Yule believe that the illocutionary force of utterances is interpreted by the respondent. Therefore, it is not as necessary for the research to explain the illocutionary force.

Another limitation with regard to discourse analysis, as critics and scholars point out, is the almost insurmountable difficulty with categorizing and analyzing data and then making conclusive statements regarding interactive language. A large part of the problem relates to the multiple layers of discourse, the social activity, and behavior that are involved when dealing with complex human beings. A simple counting of words in discourse analysis neglects the magnitude and complexity of describing all the intricacies involving language. Most research involving discourse analysis addresses characteristics of

verbal exchanges or conversations that involve social interaction between two or more individuals.

However, as a result of recognizing the limitations of discourse analysis, my study focuses on the importance of the situational context to my analysis. In order to address some of the concerns of discourse analysts, my study examines a large number of CMC participants who are involved in the same task for the same period of time. The purpose of the large number of participants is to discover patterns that emerged within the data.

Importance of situational context to discourse analysis

An important consideration in looking at social interaction, whether it be oral or written discourse, is the situational context of the exchanges. Deborah Schiffrin provides four key assumptions about language and discourse analysis that concern context and communication which are applicable to cmc because of the emphasis on context. These assumptions are:

- (1) Language always occurs in a context.
- (2) Language is context sensitive.
- (3) Language is always communicative.
- (4) Language is designed for communication (Schiffrin 3).

These four elements are also applicable to CMC in terms of describing how rational and coherent written conversation is maintained within the situational context of a computer network. Attempts to isolate language outside of any context generally fail because the form and function, specifically the situational context, are integral to understanding communication. Included in the situational context are the additional considerations surrounding a receiver who must interpret any message submitted by the speaker. I would be remiss if I did not admit to the complexity and significance of understanding each situational context. Given the multitudinous choices from which to

choose language discourse markers, Schifffrin provides a rationale regarding three general questions that discourse markers should address (72).

- (1) What do discourse markers add to coherence?
- (2) Do markers have meanings?
- (3) Do markers have functions?

Based on these three general questions, Schifffrin establishes a foundation upon which to categorize Brown and Levinson's face-saving strategies that are operationally defined in the methodology section of this text.

In order to lay a foundation for the strategies or categories that I have selected, Sinclair and Coulthard provide (Stubbs 61) four criteria that establish an observational structure regarding the nature of the data. Brown and Levinson's categories fulfill Sinclair and Coulthard's criteria based on the following guidelines:

- (1) The data must be finite in number or else one is not saying anything at all, and may be merely creating the illusion of classification.
- (2) The whole of the data should be describable; the descriptive system should be comprehensive.
- (3) There must be at least one impossible combination of symbols. This rule presupposes an interest in the structure of interaction.
- (4) The symbols in the descriptive apparatus should be precisely relatable to their exponents in the data . . . if we call some phenomenon a 'noun' or a 'repair strategy' or a 'threat' we must establish exactly what constitutes the class with that label (Coulthard 10-11).

All linguistic descriptions, according to Sinclair (1973), must conform to these four criteria and the politeness strategies that I have chosen to examine do fulfill these criteria.

However, one distinct problem with discourse analysis is the selection of categories because of the multitudinous choices (Stubbs 238). Stubbs suggests three approaches to discourse: inspecting conversational data, analyzing ethnographic data, and examining linguistic levels of discourse. For purposes of my study, I examined transcripts of CMC and selected specific mitigating markers to be coded according to politeness strategy categories fulfilled by Sinclair and Coulthard's criteria.

Analyzing the situational context of communication between human beings for the purposes of precise interpretation is a messy business, although qualitative and quantitative analyses provide some mechanisms for understanding the complexity of human communication. A major underlying assumption of qualitative and quantitative analyses is that most researchers "often assume that co-occurrences provide supportive evidence" (Schiffrin 66). In other words, more redundancies or occurrences support the hypothesis.

Another assumption is that "messages are multiply reinforced and internally consistent" (Schiffrin 66). However, Schiffrin points out that rather than perceiving messages as redundant, messages are created through complementarity (Schiffrin 66). That is, complementarity provides coherence to discourse rather than being considered as just frequencies of redundancy. Using Schiffrin's understanding that co-occurrences provide complementarity or coherence to discourse, I discovered patterns of positive and negative politeness strategies that emerged within the transcripts.

What I have chosen to categorize provides a glimpse into the situational context of a typical computer-based classroom activity. To the extent that most discourse analysis involves invented data (Stubbs 181), the empirical data I am examining represents 46 students engaging in a conventional task for a freshman composition class. By using discourse analysis as a tool for examining positive and negative politeness strategies, I will

examine the CMC discourse of 46 students with the purpose of discovering patterns that emerge from within the data.

Discourse analysis' application to CMC

Because there is no current mechanism for analyzing CMC, I have adopted discourse analysis as the most appropriate tool for examining CMC because of its foundational reliance on situational context for interpretative purposes. Its rich background of at least eight disciplines also enhances the theoretical assumptions behind examining language because language is always situationally-based. As emphasized by Tannen, Stubbs, and Schifffrin, discourse analysis can only be used as a tool for looking at language within the social context of the communication and CMC is always situationally-based. Although some of the traditional situational cues are absent in CMC, situation is still an integral component to understanding the meaning of discourse.

Grice's Maxims and the Cooperative Principle

Over twenty years ago, H. Paul Grice delivered his famous William James Lectures regarding his theory of conversation and scholars have been praising and critiquing Grice ever since (Wilson and Sperber in Werth 155). In order to lay a philosophical framework for examining how students utilize politeness strategies, I will use Grice's Cooperative Principle and maxims (Stubbs 147). From a philosophical or theoretical perspective, the Cooperative Principle, which requires that participants make conversational contributions meaningful, furnishes some insight regarding the social interaction between participants who are engaged in conversation.

Grice establishes four maxims and the Cooperative Principle as necessary components to meaningful conversation.

Definition and limitation

Grice's maxims (quality, quantity, manner and relevance) establish four underlying assumptions of interaction that are necessary in order for rational and coherent discourse to take place. However, not all scholars wholeheartedly embrace Grice's basic assumptions regarding conversation. For example, D. Good critiques Grice for his overestimation of the required cooperation by participants in order for rational discourse to transpire; nevertheless, Grice does submit a reasonable framework for examining social interaction (140).

According to Grice, conversation is governed by the Cooperative Principle which states:

Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged (Grice 45).

However, before communication can be established, three of the following features of a cooperative transaction must be observed.

- (1) Participants must have a common aim.
- (2) Participants' contributions should be dovetailed, mutually dependent.
- (3) Participants must have an understanding that the transaction should continue in an appropriate style.

According to Grice, these three elements must exist before coherent and rational discourse can occur. For purposes of my empirical design, students engaged in a common assignment to all students; that is, students were to discuss Toulmin's legal model of argumentation as it related to their discussion questions. Based on these three features of a cooperative transaction, students observed a cooperative transaction while interacting on the computers because they fulfilled Grice's three criteria.

Given the similar characteristics of conversation in CMC, the Cooperative Principle is applicable. Specifically by applying Grice's four maxims of quantity, quality, relation, and manner to students' CMC, this emergent register can be systematically analyzed according to the four maxims:

(1) Quantity maxim

Make your contribution as informative as is required. Do not make your contribution more informative than is required.

(2) Quality maxim

Do not say what you believe to be false.

Do not say that for which you lack adequate evidence.

(3) Relation maxim

Be relevant.

(4) Manner maxim

Avoid obscurity of expression, ambiguity and be brief and orderly.

Failure by participants, however, to fulfill these maxims may be described in one or more of the following nonperformance categories or categories that don't require action by the speaker.

(1) Violating or misleading information.

(2) Opting out or unwilling to cooperate.

(3) Clashing or the inability to be informative.

(4) Flouting or blatantly failing to fulfill a maxim.

With regard to the last category, flouting can be further characterized through irony, metaphor, meiosis, or hyperbole. Flouting can also occur if participants use ambiguity or obscurity, or fail to be brief during discourse. These nonperformance categories provide guidelines for systematic analysis of any type of interaction that falls under the subclass of

the Cooperative Principle, including Grice's maxims. In other words, these categories provide a means of measuring the observance or violation of Grice's maxims.

Application of Grice to CMC

Grice establishes the parameters of meaningful conversation between at least two or more participants engaged in conversation. Verbal exchanges typically fulfill the criteria established by Grice in maintaining coherent and rational discourse.

CMC also requires that meaningful discourse be established in order for participants to create meaning out of discourse. The interactive nature of Grice's Cooperative Principle and his maxims are applicable to CMC because of the interactive necessity of maintaining coherent discourse in CMC.

Politeness Strategies

According to Brown and Levinson, "Politeness is then a major source of deviation from rational efficiency" (95). Or as Robin Lakoff describes the Politeness Principle: "a system of interpersonal relations designed to facilitate interaction by minimizing the potential for conflict and confrontation inherent in all human interchange" (Lakoff 34). Based on Grice's Cooperative Principle of establishing what is meaningful conversation, the Politeness Principle, then becomes a vehicle for repairing conflict or deviation from meaningful conversation. Negative politeness, according to Horn, "is based on Grice's quantity maxim" which basically says "don't say more than is necessary" whereas positive politeness is based on "say as much as is required" (Brown and Levinson 4).

Because each individual enters conversation with his or her own unique baggage, agenda, or needs, conflict and confrontation are intrinsic to conversation. Consequently, politeness strategies provide a mechanism to "preserve at least the semblance of harmony and cohesion" of any interaction between two or more participants (Lakoff 35). Politeness

strategies are employed by participants who are engaged in interaction for repairing and maintaining conversation (Brown and Levinson 5).

All competent adults in society, according to Erving Goffman, enter social interaction intending to save face, to avoid embarrassment or humiliation, or to avoid "losing face" (Brown and Levinson 61). Two descriptive ways to describe how participants socially interact are by using:

negative face, which signifies the desire that one's actions be unimpeded by others, or positive face, which is one's want that others desire one's wants (Brown and Levinson 62).

Participants of social interaction "are mutually vulnerable in any communicative act," including CMC, according to Hagge and Kostelnick (318). Brown and Levinson believe that "most communicative intentions have built-in social implications, often of a threatening sort" (281). Minimizing these face-threatening acts, or FTAs, involve the sender participant of social interaction to "juggle three conflicting wants:

- (1) to communicate the content of the FTA
- (2) to be efficient or urgent
- (3) to maintain the hearer's face to a certain degree" (Brown and Levinson in Hagge and Kostelnick 319).

Positive face-saving strategies

There are 15 categories of positive politeness, according to Brown and Levinson, that participants use to mitigate FTAs (102-128). These categories represent the desires between the hearer and sender to share "interest and approval of each other's personality, shared wants and shared knowledge, claims to reciprocity of obligations or to reflexivity of wants" (Brown and Levinson 101). Essentially, the goal of positive face-saving politeness is to:

- (1) establish common ground
- (2) convey that the sender and hearer are cooperators
- (3) fulfill the hearer's want (Brown and Levinson 103).

Negative face-saving strategies

Negative face-saving politeness strategies fall into 10 categories that describe specific and focused linguistic behavior. These categories illustrate "rituals of avoidance" whereby politeness strategies are used to hedge or focus on fulfilling the sender's goal of having "her/his freedom of action unhindered" (Brown and Levinson 129). Essentially, the goal of negative politeness is to:

- (1) be direct
- (2) don't presume/assume
- (3) don't coerce the hearer
- (4) communicate the sender's want to not impinge on the hearer
- (5) redress other wants of the hearer (Brown and Levinson 131).

Three important sociological considerations of social interaction, according to Brown and Levinson, are the relative power of the speaker over the hearer, the social distance between the speaker and the hearer and the ranking of the imposition (15). However, empirical experiments have produced conflicting results regarding social interaction, specifically politeness and what politeness strategies represent. For example, Baxter (1984) found subjects used greater politeness for close relationships whereas Holtgraves (1984) found subjects judged politeness as an indication of "'higher' reciprocal liking between speaker and hearer" (Brown and Levinson 15).

Lakoff adopts Grice's four maxims and formulates her own politeness maxims by suggesting that while engaging in conversation, participants should use the following principles:

- (1) Formality: Do not impose or remain aloof.

There is a sense of danger in interaction; but deference denies the existence of interaction by removing the speaker from the action. Deference is exhibited by debasing one or both participants (depending upon whether the deference is mutual or unilateral).

- (2) Hesitancy: Allow the addressee his/her options.

- (3) Equality or camaraderie: Act as though you and the addressee were equal/make him/her feel good.

Politeness strategies are necessary in order to maintain coherent and rational conversation although they often may seem inadequate or cumbersome; nonetheless, they act as "facilitators for interchange" (Lakoff 39). In addition, Lakoff provides four established categories that help predict "superficial regularities of conversation" that are applicable to CMC.

- (1) Ordinary conversation is reciprocal.

Ideally each participant in conversation has equal access to all possibilities of action and interpretation. Likewise with CMC, participants potentially experience an egalitarian access that is unprecedented in nature. With the computer buffer, participants enjoy freedom on the network because social cues that typically inhibit conversation are absent.

However, in other types of discourse, such as in courtroom discourse, public format and constraints inhibit participants from participating in an equal role.

- (2) Conversation is generally informal.

In ordinary conversation, linguistic forms often refer to the persons present; expressions of emotion will be favored; self-assessments; interruptions and silences; reactions to participants' contributions are all present in informal conversation. With the exception of interruptions and silences, CMC displays attributes of informal conversation

such as expressions of emotion or reactions to participants' contributions while communicating.

(3) Some kinds of communication have public accessibility.

Although some kinds of communication are private in nature, other types of communication become public discourse such as is displayed in a public courtroom where an explicit order of business is usually followed with carefully prepared discourse. With CMC, a unique dynamic occurs because the computer technology facilitates the transference of private discourse into public discourse with unparalleled speed and ease of production.

(4) Conversation is typically spontaneous.

CMC displays spontaneity similar to informal conversation because of the immediacy of feedback and ease of production (Kiesler et al. 337). Often immature thinking is communicated on the computer because a gestation period of developing thought is absent from the communication process.

(5) In some forms of discourse, (especially in CMC) power allocation is egalitarian (Lakoff 42-44). According to network theory (Barker and Kemp), computer networks provide the potential for an egalitarian environment for learning.

Based on these broad guidelines, CMC displays similar characteristics to conversation.

Application of the politeness strategies

Because each competent adult enters CMC with the purpose of saving face, positive and negative face-saving linguistic behavior become important mechanisms for participants to save face. Face-threatening behavior occurs in every communicative act, according to Brown and Levinson and Hagge and Kostelnick; therefore CMC participants also experience face-threatening behavior within the computer networked environment.

However, social cues that are sometimes involved in face-threatening behavior are absent in the computer environment; therefore, CMC participants exclusively rely on discourse for cues. The question under examination in this thesis addresses how CMC participants linguistically compensate for the lack of FTAs cues and how CMC participants utilize positive or negative face-saving strategies.

Gender

During recent years, gender scholars (Belenkey, Chodorow, Gilligan, Treichler and Kramarae) analyzed interactive discourse and determined that men enjoy competitive environments whereas women seek and enjoy a more nurturing and cooperative environment (Lay 25). This analysis is important in understanding the interactive dynamics within the workplace, classroom, a computer-based classroom or any environment where language becomes the vehicle for interaction. Politeness strategies become one mechanism for genders to display discourse that represents solidarity or restraint while using CMC.

In 1983, Treichler and Kramarae described women's interactive language style by providing specific speech markers that women use, such as "you, we, let's, shouldn't we" and nonverbal cues such as head nods (120). As already suggested, some of these speech markers (i.e., we, let's) are also representative of face-saving strategies used by individuals to engender solidarity.

Maltz and Borker identified at least five areas where gender differences, including the "expression for solidarity," according to Brown and Levinson, emerge in discourse. They include the following:

1. Women see questions as part of conversational maintenance whereas men see them as requests for information.

2. Women acknowledge previous utterances and try to connect with them whereas men have no rule and often ignore preceding comments.

3. Women interpret aggression as personal, negative and disruptive while men view it as simply part of conversation.

4. Men shift topics quickly while women develop topics progressively and shift gradually.

5. Women share experiences, offer reassurances, and give mutual support whereas men hear problems as requests for solutions and respond by giving direction, advice, act as experts or lecture their audience (Treichler and Kramarae 120).

These five areas of gender difference can also be examined in CMC by looking at positive face-saving politeness strategies.

Treichler and Kramarae cite an interesting study regarding the difference between female-taught classes and male-taught classes where it was concluded that students perceived no difference in the teachers' gender and how it affected the probability of male and female class participation. However, an actual quantification of teacher/student interaction revealed that with male teachers "men's interactions were three times more frequent than women's in female-taught classes whereas in female-taught classes interaction was considerably equalized, with men's interactions representing 57.8% of the total and women's interactions totaling 42.2% (122). I raise this interesting citation because my study, with me as a female instructor, revealed similar interaction, although I was not involved in any of the interaction during the CMC (see the results section for further explanation).

Many gender-linked studies have concluded that "women participate less frequently in mixed-sex classes" although some of these studies fail to address some of the political and social realities involved (Thorne in Treichler 122). In 1973, Brownell and Smith

determined that the amount of speech, including the number of turns taken, is indicative of power or dominance in conversation (Selfe and Meyer 167). If this argument is compelling, the number of speech exchanges and total number of words written by gender, becomes one method of measuring power in terms of gender in CMC.

Other cross-gender studies have suggested that females ask more questions (Fishman, 1978, 1983 in Selfe and Meyer in 167) and make more apologies than males (Eubanks 1975; Kalcik, 1975 in Selfe and Meyer 167) (Brown and Levinson 21). Selfe and Meyer believe "men and high-status individuals seem to dominate the conversation" (180).

In contrast to these studies, Lakoff's popularized argument that women exhibit more "polite" discourse than men has been unsubstantiated in detail by quantitative studies, according to Brown and Levinson. For example, in 1977, Shimanoff tried to quantify women's speech for politeness markers but discovered no sex differences in speech patterns (Brown and Levinson 29-30). Part of the reason for inconclusive research, according to Brown and Levinson, is that too many variables affect social and hierarchical relationships and it is almost impossible to adequately address all factors involved (30).

As evidenced in the research, studies provide contradictory results. It has not been proven that females exhibit a higher frequency of politeness strategies than males. In addition, studies in CMC are needed to further clarify these issues. With regard to gender issues, research on computers remains an uncharted territory.

Gender in CMC

CMC participants, specifically those involved in the empirical study under examination, in theory at least, enjoyed the same social status and social distance because they were all freshmen involved in the same social interactional activity. CMC provided an environment whereby all students were stripped of social cues that typically represent

gender and social status; therefore, students should have enjoyed an egalitarian environment where each student was given equal access and opportunity to engage in interaction.

The question under examination relates to how students interacted on computers and maintained deferential politeness when anonymity altered the situational context; that is, the traditional dependency on social cues for maintaining communication was radically modified or absent.

With regard to face-saving strategies used by females, some literature suggests that females exhibit more solidarity, nurturing behavior, and cooperation in their discourse than males. Based on Brown and Levinson's categories of positive face-saving strategies, females' discourse that is described as an "expression of solidarity" will be closely examined in order to determine whether or not females manifested more positive face-saving strategies than negative. One of the more interesting aspects of this study involves the anonymity that females enjoyed while communicating on the computer network and whether or not the anonymity affected the females' participation while on the computer network.

CHAPTER TWO: AN OVERVIEW OF THE METHODOLOGY

This chapter will describe the subjects of the study, the background of the task, and the task that was required by participants of the study. In addition, the types of data collected and methods of analysis will also be addressed. Finally, operational definitions for positive and negative politeness strategies according to Brown and Levinson will be defined.

Subjects of the Study

Two intact freshman composition classes totaling 46 students (21 females and 25 males) participated in a networked computer classroom session. Each of the two classes participated in one fifty-minute computer lab class. Students in each class were divided into groups of four--two females and two males. Consequently, for both classes totaled together, there were six groups of four students, four groups of three students and two groups of five students; the latter group size numbers are the result of absenteeism and odd class size. Students were assigned to groups and given generic anonymous pseudonyms (letters of the alphabet) by me which I handed out on slips of paper to each student as he or she entered the networked computer lab classroom. Students did not know the social identity of their group members and were encouraged to remain anonymous during the task.

Background of the Task

During the semester, students had been using Ramage and Bean's textbook, *Writing Arguments*, which details Stephen Toulmin's legal model of argumentation as a method for preparing and analyzing written arguments. For two class sessions previous to the networked computer session, students applied Toulmin's six elements of argumentation to a

class exercise while working collaboratively, and then they applied Toulmin's model to the personal position papers they were writing as part of their coursework.

Toulmin's model of argumentation requires an analysis of a writer's assumptions by asking six questions:

- (1) What is the claim of the argument?
- (2) What is the warrant?
- (3) What are the grounds?
- (4) What are the conditions for rebuttal?
- (5) What is the backing?
- (6) What is the qualifier?

As a result of classroom discussions about Toulmin's legal model of argumentation, students should have been familiar with applying Toulmin's model in examining writers' assumptions.

The Task

The specific task assigned to students for the computer lab session required background reading outside of class based on Michael Barrett's article, "Extending the School Year" in the November 1990 issue of *The Atlantic Monthly* magazine. In addition, the subsequent editorial response that represented opposing points of view to Barrett was part of the required reading (See Appendix A). Based on reading at least two opposing views from the editorial responses, students were asked in groups on-line to utilize Toulmin's legal model of argumentation as a tool for examining writers' assumptions. This assignment was completed during one 50-minute networked computer classroom session where students engaged with one another in discourse while communicating on the computer. At the end of the class, students' exchanges were then compacted onto a floppy

disk, translated into word processing language, and finally printed into hard copy paper transcripts for examination.

Types of Data Collected

The amount of data that should be collected varies, according to Labov (1972a), because talking patterns differ according to social-class stratification. Labov (1972a) claims "that patterns emerge from samples of only 25 speakers, and that results are possible with only five speakers in each cell, and five to ten samples of each linguistic variable from each speaker" (Stubbs 223). For purposes of this design, 46 students participated in the computer-networked classroom. Based on Labov's criteria, 46 students is a sufficient number of participants to establish emerging patterns within the data I have collected.

Transcripts of students' CMC discourse totaled 58 pages, representing data from both freshman composition classes. Transcripts were coded according to Brown and Levinson's face-saving politeness strategies.

Students' discourse was coded by positive or negative face-saving strategies, as defined by Brown and Levinson, and was quantified by counting the number of words generated by each student and the frequency of speech exchanges by each gender. Politeness strategies, specifically the 15 positive strategies and the 10 negative strategies, were also quantified according to the criteria that was earlier established.

Transcripts

Twelve transcripts of CMC, representing 46 students' discourse, were collected at the end of two 50-minute computer networked classes (6 transcripts from each class respectively). Each transcript represents a networked group of three, four, or five students

interacting with one another and discussing the task assigned, Toulmin's model of argumentation.

Questionnaire

In addition, a questionnaire was completed by each student who participated in the computer class session to determine if students were hostile to the computer networked environment which might affect their use of politeness strategies. Students were asked to fill out a questionnaire one week after the computer networked classroom activity. However, before handing out the questionnaire to the students, I penciled in numbers 1-46, respectively, in the left hand corner on the back side of the questionnaires so that I could later record gender. After I handed out the questionnaires, I then copied down the seating arrangement while students were completing the questionnaire so that I could then associate gender with the numbered questionnaires (see Appendix B).

The questionnaire clusters information into three categories; the first two questions ask information about the student's computer expertise; the second two questions relate to aspects of the computer laboratory environment; and finally, the third cluster of questions relate to students' use of pseudonyms and how it affected their collaborative participation in the classroom. The questionnaire will be more fully discussed in the Results section of this study.

Methods of Analysis

For methods of analysis, I used various computerized software applications that made the coding and counting of politeness strategies manageable.

Coding

Operational definitions were taken from positive and negative face-saving discourse strategies as established by Brown and Levinson.

WordPerfect

WordPerfect, a word processing software, was used for word and speech counts.

Quattro

A database management package, Quattro, was used to provide a spreadsheet for calculating individual students' speech and word counts from the transcripts.

SPSS-X

A statistical analysis package, SPSS-X, on the ISU mainframe, was used to run frequencies and cross tabs to determine gender differences.

Positive and Negative Face-saving Strategies

The focus of this study is the examination of positive and negative face-saving politeness strategies displayed by students who are using CMC as their mode of communication. Definitions of positive and negative face-saving strategies were provided by the detailed categories described by Brown and Levinson.

Positive face-saving strategies

By relying on Brown and Levinson's operational definitions, I determined the following categories to represent positive face-saving linguistic strategies:

- (1) Notice, attend to hearer interests, wants, needs, goods
- (2) Exaggerate interest, approval, or sympathy with hearer
- (3) Intensify interest to hearer
- (4) Use in-group identity markers
- (5) Seek agreement
- (6). Avoid disagreement
- (7). Presuppose/raise/assert common ground
- (8). Joke

- (9) Assert or presuppose speaker's knowledge of and concern for hearer's wants
- (11) Offer, promise
- (12) Be optimistic
- (13) Give or ask for reasons
- (14) Assume or assert reciprocity
- (15) Give gifts (goods, sympathy, understanding, cooperation) (Brown and Levinson (102-128).

Negative face-saving strategies

With regard to the negative face-saving strategies, according to Brown and Levinson, I determined the following categories representative of negative face-saving politeness strategies:

- (1) Be conventionally indirect
- (2) Question, hedge
- (3) Be pessimistic
- (4) Minimize the imposition
- (5) Give deference
- (6) Apologize
- (7) Impersonalize: avoid pronouns "I" and "you."
- (8) State the FTA as a general rule
- (9) Nominalize
- (10) Go on record as incurring a debt (Brown and Levinson 130).

These politeness face-saving strategies provide operational definitions for how students used negative politeness throughout their discourse, although most strategies fell into categories one and two which include being conventionally indirect and hedging.

In order to provide an understanding as to how coding was conducted, I would like to first provide a few typical examples of the type of discourse that were coded. By using Brown and Levinson's 15 categories of positive politeness and 10 categories of negative politeness, I then established that discourse fell into one of the two categories. When students' exchanges appeared to seeking agreement or avoiding disagreement, I placed them in the positive politeness category. For example, females displayed positive strategies in the following exchanges:

"I agree that his claim is . . ."

"I think you are right about the claim being that?"

"What do you think?"

"Anyone else have any other ideas?"

I determined that these exchanges fell in the category of positive politeness strategies because these female students were seeking agreement among their peers. Most of the discourse exchanges fell into the fifth or sixth categories of Brown and Levinson's list; that is, seeking or avoiding disagreement.

With regard to negative face-saving strategies, I determined the following exchanges to represent negative politeness because of the hedging in the exchanges. For example:

"I don't quite remember what a warrant is, could you help me out?"

"I'm not really sure, but . . ."

These negative politeness strategies exhibit hedging or hesitancy in the students' discourse. In other words, I determined that any exchanges that displayed hesitancy would fall into negative politeness strategies.

CHAPTER THREE: A DISCUSSION OF THE TRANSCRIPTS AND QUESTIONNAIRE RESULTS

The purpose of this section is to examine the research question of how students linguistically compensated for the lack of social cues typically enjoyed by participants of social interaction by specifically looking at how students manifested politeness strategies. Based on a discourse analysis of 12 transcripts and the student self-reported results from the questionnaires, the results reveal that students did exhibit politeness strategies described by Brown and Levinson. The rest of this chapter discusses a discourse analysis of the transcripts and how the questionnaire results support the hypothesis that students were not intimidated or hostile towards the computer environment; therefore, students' politeness strategies were not directly related to an overuse of politeness strategies as a mechanism of linguistic compensation. The questionnaire results also supports the fact that students did not self-report any hostility while communicating on the network.

With regard to gender, a brief explanation regarding the females' higher frequency of positive politeness strategies than males will also be discussed. Not surprisingly, females displayed more "expressions of solidarity" in terms of positive vs. negative politeness strategies than males. In addition, the question of gender discourse production and its relationship to the frequency of politeness strategies will also be discussed. Some literature suggests that females enjoy pseudonyms within an egalitarian and safe environment; however, the results of this study show that females did not produce more discourse than males, nor did females dominate the number of exchanges among participants.

The first section of this chapter will quantify the discourse production and illustrate in Tables 1-4 the relationships between gender, discourse production, and politeness

strategies. The next section will examine the transcripts within the framework of Grice, Brown, and Levinson to determine the types of politeness strategies used by students.

Finally, a discussion of the self-reported questionnaire results will help triangulate and verify the fact that students essentially enjoyed the anonymity provided by the computer network, and in fact, that students displayed politeness strategies as a means of "expressing solidarity" to complete the assigned task.

Discourse Production

Both freshmen classes generated a total of 12,655 words or approximately 58 pages of transcripts, representing 12 collaborative writing groups or six writing groups from two separate freshman composition classes. Tables 1-3 represent the gender breakdowns of students and their discourse production.

Table 1. Gender breakdown of participating students according to categories

Type of category	Females	Males
Number of Students	21	25
Percentage of Students	45.7	54.3
Number of Words	6,052	6,603
Number of Exchanges	255	251

Based on the data provided in Table 1, there is little disparity in terms of gender participation, either in the number of students participating or in the number of exchanges produced by each student.

Tables 2 and 3 describe the discourse production of students by gender and group although Tables 2 and 3 do not show any great disparity of discourse production by gender. In other words, one gender does not dominate the other either in word count or number of exchanges.

Table 2. Word counts and number of exchanges per student in class B by gender

Female/male student pseudonyms		Word Count	Number of Exchanges
abc	female	593	22
bcd	female	438	16
aaa	female	425	27
stu	female	382	24
hij	female	366	16
def	female	336	22
ghi	female	290	10
bbb	female	236	12
klm	female	135	2
mmm	female	91	3
qqq	male	427	12
efg	male	396	17
ppp	male	329	8
mno	male	288	25
jkl	male	278	6
eee	male	245	11
nnn	male	234	10
ddd	male	202	8
ooo	male	196	11
yza	male	158	16
ccc	male	146	11
pqr	male	134	10

Table 3. Word counts and number of exchanges per student in class D by gender

Female/male pseudonyms		Word Count	Number of Exchanges
klm	female	367	14
hij	female	317	10
ghi	female	307	12
nop	female	275	10
zab	female	258	11
uvw	female	245	8
tuv	female	242	10
qrs	female	220	7
pqr	female	206	6
mno	female	167	11
ijk	female	156	2
lmn	male	508	19
stu	male	397	11
bcd	male	396	9
rst	male	354	11
cde	male	321	7
jkl	male	286	6
opq	male	254	12
yza	male	248	16
abc	male	233	8
vwx	male	217	7
wxy	male	127	3
fgh	male	169	5
def	male	60	2

Tables 2 and 3 display a range of participation that varied with each class, although there does not appear to be a great disparity in terms of one gender dominating another.

Positive/negative strategies

Students generated both positive and negative face-saving strategies while using CMC. A breakdown between the categories reveals that female students used 35 more positive face-saving politeness strategies than males, and that females used seven more negative face-saving strategies than males as displayed in Table 4.

Table 4. Positive and negative face-saving strategies as defined by Brown and Levinson by gender

Positive politeness strategies			Negative politeness strategies		
Groups	female	male	Groups	female	male
1B	15	5	4B	6	1
6D	13	5	1B	5	0
4B	13	4	1D	4	2
2B	9	5	3D	2	1
2D	4	7	5B	2	2
5D	4	3	3B	1	5
6B	4	0	2D	1	3
3D	3	10	2B	1	2
3B	3	2	6B	1	1
5B	2	0	5D	1	0
1D	1	0	4B	0	0
4D	0	5	6D	0	0
TOTALS	<u>71^a</u>	<u>36^a</u>		<u>24^b</u>	<u>17^b</u>

Total Positive strategies = 107

Total Negative strategies = 41

^aMainly consensus seeking or agreement seeking discourse

^bMainly hedging or conventionally indirect

Discussion of the transcripts

Essentially, the most frequently used positive face-saving category involved students seeking agreement or avoiding disagreement among their groups. For example, the most frequently used strategy was "I agree with . . . " One possible factor that may have affected this behavior is the maturity level of freshman students participating in this problem-solving task; however, it is interesting to note that students seemed to compensate for the lack of social cues by using more positive face-saving strategies than negative face-saving strategies in order to accomplish their task. In an attempt to save face, according to Brown and Levinson, students manifested positive politeness face-saving strategies as an "expression of solidarity" by seeking consensus and approval from their respective groups.

Freshman students using CMC displayed positive and negative face-saving politeness strategies throughout their discourse with one another. Transcripts of students' interaction show that indeed students did exhibit politeness strategies that linguistically compensated for the absence of social cues typically enjoyed in conversation. Before examining the transcripts, however, a discussion of Grice is necessary in order to establish whether or not students observed or violated some of Grice's maxims.

Grice's Maxims

Based on a Gricean framework of conversation, students displayed typical oral discourse characteristics and contributed meaningful conversational discourse while communicating on networked computers. Oral conversational guidelines such as Grice's Cooperative Principle and maxims provided the foundation for analyzing the interactive nature of students' CMC.

Students successfully communicated even though the dramaturgical and social cues typically present during conversation were absent. Students relied totally on written

discourse as their mode of communication. Consequently, students needed some mechanism for maintaining coherent discourse with their counterparts. Forty-two students identified each other by pseudonym at least 72 times throughout the transcripts. Despite the fact that approximately four people or more per group engaged in ongoing discourse simultaneously, students did not begin using pseudonyms to identify one another until about the second or third exchange with each other, at least until after everyone had initiated at least one exchange. Some examples which typify this discourse include:

To abc: I agree with what you said.

I agree with what abc said about the claim.

This pattern of identifying one another by repeating pseudonyms appears to be an isolated dynamic of CMC, which violates or flouts Grice's maxims, or this pattern may be a face-saving politeness strategy employed to engender cooperation in CMC. During oral conversation, the frequent or repeated use of speakers' names is unusual, rather than the norm, because a speaker usually faces the participant and does not feel compelled to repeat the participant's name (Ventola in Wilkins 97). However, students participating in CMC intentionally repeated their peers' pseudonyms as a means of compensating for the absent visual cues typically present during conversation. Consequently, these students flouted a maxim by using redundancy in order to fulfill the maxim which requires clarity. Students compensated for the lack of social cues by repeating their classmates pseudonyms as a politeness strategy in order to maintain coherent and meaningful social interaction.

Positive and Negative Politeness Strategies

Although most of the 15 positive face-saving strategies, such as joking, offering promises or exaggerating, did not appear throughout the transcripts, the most frequently used technique was students seeking agreement among themselves. For example, students

frequently began their exchanges with "I agree with *abc*. . ." even though most of their exchanges did not directly deal with the assignment. Often times the discussion would revolve around a student's comment regarding the current state of American education and students would respond by stating: "I agree with . . ." One reason for this consensus seeking behavior could relate to the maturity level of freshmen; that is, students' insecurity is displayed throughout the transcripts. However, students' desires to save face are also evident in the positive face-saving strategies that they employed in their discourse.

In contrast to positive face-saving strategies, the most frequently used negative face-saving strategy was hedging or asking a question. For example, students often said "I don't know what a claim is. I think it is . . ." Some negative strategies such as apologizing or giving deference to a classmate's exchange appeared throughout the transcripts, but the majority of negative exchanges fell into the category of hedging or using conventionally indirect language. One outstanding exchange of using conventionally indirect language occurred among two males and a female who used a negative politeness strategy as a means of repairing conversation among her group. The following exchange displays the negative politeness strategy:

From *lmn* (a male student): Where have you been??? We have already decided on everything but the qualifier.

From: *def* (a male student): I ve been trying to figer this out!

From *mno* (a female student):

Okay you guys let's stop being rude to each other!

This exchange between *lmn* and *mno* displays some low level of frustration between these two members of the group; however, the female *mno* uses conventionally indirect language by including herself in the category of being rude, when in fact, she has not been part of the two males' exchanges. She specifically states "Ok you guys let's stop being rude." By

including herself in the exchange, *mno* is displaying conventionally indirect discourse in her attempts to moderate her classmates' exchanges between one another.

Most other examples of negative politeness strategies included "What do you think?" or "I don't know, but . . . " Frequently, the negative politeness strategies involved students' admitting some deficiency or hedging in their exchanges, but then proceeding to offer an opinion or to transfer some type of information. The most frequently used negative face-saving strategy that students used was hedging or using a question to state an opinion, although there appears to be no great disparity between genders. The most striking aspect of this data is that students compensated with more positive, rather than negative face-saving strategies.

Gender

Females used more positive face-saving politeness strategies than males, although there is little disparity in gender discourse production because females and males participated almost equally in total numbers of speech exchanges (turn-taking) and total number of words generated during CMC. If Brownell, Smith, Selfe, and Meyer are correct in their hypothesis that power and dominance are evidenced in the highest number of speeches and turn-taking speech exchanges, then this study shows no dominance of one gender discourse production over the other. The data shows an almost equal number of speeches by each gender. One interesting aspect about this study is that although students communicated anonymously, gender disparity only appears in the positive vs. negative politeness strategies. Otherwise, throughout all of the collected data, the gender results show an almost equal relationship. Contrary to Lakoff and other gender studies, females did not exhibit a higher degree of frequency exchanges or discourse production than the males.

As to gender, almost twice as many females exhibited positive consensus-seeking linguistic behavior than males which validates research that suggests females are more nurturing in terms of seeking solidarity than males (see Table 4) . The nurturing or cooperating nature of positive face-saving strategies is confirmed in the research by Kramarae who suggested that females display a coopting attitude towards social interaction. Even though pseudonyms removed social identity, mainly gender, flaming did not occur. The freedom to violate all forms of social courtesy was not observed by students.

Flaming

Although the possibility for flaming did exist, it is interesting to note that students did not exhibit any hostility or offensive linguistic behavior towards their counterparts on the computer network. In fact, the reverse occurred in that students exhibited politeness strategies that engendered solidarity in working together to complete the assigned task. The argument could be made that students were influenced by the instructor who structured the assignment; however, the potential for flaming, by students using pseudonyms, still existed, but the fact remains that students choose not to flame one another. The possibility and potential for abandoning all social courtesies existed yet students observed politeness strategies rather than engage in derogatory flaming with one another.

On-task and off-task discourse.

The transcripts reveal that students were successful in engaging in the assigned activity. With regard to face-saving strategies, students surprisingly stayed on-task throughout the majority of the transcripts and manifested nurturing "expressions of solidarity," including social niceties such as greetings and farewells, while completing the assigned task.

Despite the fact that students participated in a new environment, students were still successful in maintaining rational and coherent discourse. In fact, by most typical

pedagogical standards, on-task behavior is a measurement of success. In order to measure this success, the corpus of text was categorized into the first category according to on-task discourse which included all text related to the discussion of Toulmin's legal model of argumentation and Michael Barrett's essay and the editorial responses. On-task discourse represented 87% of the data.

The remaining 13% of the data, described in Table 11, fell into a second category of off-task discourse catalogued by gender according to the following five classifications: greetings, computer discomfort, social identity (students asked one another to identify themselves), farewells, and miscellaneous.

Category number two, "computer discomfort," includes statements by three students who expressed frustration with the slowness of the computer network in sending messages, and the desire to discover classmates' names. These three students (out of 46) wrote three exchanges whereby they revealed some discomfort level. Generally, however, students were successful in communication and basically used the off-task discourse for discourse maintenance.

Category three identifies exchanges by students who were seeking to know the social identity of each other. For example, one student stated: "I want to know who I'm talking to." and another student said "Should we give our seat numbers or our names?" An interesting aspect regarding this seeking identity by students is that not one student responded with his or her social identity.

Table 11 displays the types of categories students used to maintain CMC discourse.

Table 11. Off-Task discourse represented 13% of text broken down into the following categories

Type of discourse	Female and Male Occurrences	
1. Greetings	3	3
2. Computer discomfort	2	1
3. Seeking social identity	12	15
4. Farewell	4	4
5. Miscellaneous	1	3
TOTAL	36	38

Off-task discourse was represented by 13% of the overall corpus of text. As evidenced by the equivocal numbers of 36 and 38, there is little disparity regarding gender in terms of off-task discourse. Apparently students desire to express social niceties, such as greetings and farewells, is important despite the fact that anonymity pervaded the discourse.

Discussion of the Questionnaire Results

In order to triangulate the collected data, I also asked students to respond to questions relating to their personal computer experience. The questionnaire results explain whether or not students experienced undue discomfort while working in the computer networked environment. For example, if students were completely uncomfortable with the computer environment, their use of politeness strategies may have been affected because of their hostility towards the environment. Students would probably overcompensate with politeness strategies if they were extremely uncomfortable with computers or students would probably display hostility or frustration in their discourse if they were threatened or intimidated by the computer network environment.

Of the 46 students who participated in the study, 45 completed the questionnaire. One student was absent the day the questionnaire was handed out.

Based on the results of the questionnaire, students self reported no discomfort or hostility with using computers. An important concern of this study is students' attitudes towards the computer network because if students were uncomfortable with the computer networked environment, politeness strategies would either be nonexistent or over exaggerated. However, no hostilities toward the computer network were discovered in the open-ended questionnaire responses by students.

Next, I will discuss the nature of the questionnaire and students' responses to the questions. The questionnaire results represent important information regarding students' attitude towards CMC. In order to simplify the results of the questionnaire, I will first explain the nature of the questions and then the results, which are usually supported by tables that categorize the open-ended nature of the answers, except for questions 1 and 2 that required a definitive answer.

Questions #1 and #2 The first two questions specifically asked students about their computer expertise which was operationally defined in terms of months (time) that students had used a Mac or an IBM computer. The purpose of these questions was to elicit whether or not students had any previous knowledge of computers because any students' expertise would lessen their intimidation associated with a new learning environment. If students were upset or intimidated by using computers, students would probably display linguistic behavior that would be either threatening in nature or overcompensating because of students discomfort level with the new and unique computer environment.

Results At least 59% of the students responded that they had used an IBM pc or a Macintosh computer. In other words, over half of the class had used a computer at least once before this empirical study was conducted. Based on this self-

reported information, over half of the students appeared to be moderately computer literate.

Questions #3 and #4 This pair of questions was open-ended in that students were not provided with options about how to respond. The pair of questions asks what aspects of the computer lab environment students liked or disliked which is valuable information in determining whether or not students were hostile to this networked computer environment.

Results Tables 5 and 6 reveals that almost half the students, or 26 students, liked the computer networked classroom because it was "new, different and interesting."

Table 5. Question #3. "What did you like about the computer lab experience?"

Students' comments	# Students	Female	Male
1. new, different, interesting	26	13	13
2. liked anonymity	11	4	7
3. more productive	3	2	1
4. miscellaneous	5	3	2

Based on students' responses in question #3, as displayed in Table 5, students may have chosen not to flame because students were in a new and unique environment. However, with regards to anonymity, seven males compared with four females volunteered the fact that they enjoyed the privacy of anonymity that the network provided for them, which is

somewhat surprising considering the literature regarding gender that states more females than males enjoy the safety and privacy of an egalitarian environment.

In order to elicit a balanced response from students regarding their likes and dislikes of the computer environment, question #4 provided an opportunity for students to voluntarily respond with their dislikes about the computer lab. Table 6 provides at least eight categories that describe students' responses.

One interesting aspect regarding Table 6 is that almost twice as many males disliked the Mac software program that was used for the study and twice as many males complained that their poor typing skills interfered with their ability to fully enjoy the computer network. The most important aspect of Table 6 is that students were given the opportunity to voluntarily express their frustration, hostility or discomfort with the computer environment, yet the self-reported results by students show no hostility or discomfort.

Table 6. Question #4. "What did you dislike about the computer lab experience?"

Students' comments	# Students	Female	Male
1. nothing, I liked it.	9	4	5
2. disliked the Mac program	9	2	7
3. poor typing skills	7	2	5
4. took longer, more difficult	7	7	0
5. ran out of time	5	3	2
6. didn't like assignment	1	0	1
7. didn't like anonymity	2	1	1
8. miscellaneous	4	missing	

Essentially Tables 5 and 6 reveal no real discomfort by either gender regarding students' discomfort or hostility towards participating on the computer network environment.

Questions #5 This question asked students whether or not pseudonyms were preferred while communicating on the network. The purpose of this question was to confirm whether or not students preferred anonymity while discussing the assigned text with their peers. In theory, the psychological filtering of the computer and the egalitarian nature of the computer environment should have freed students into being more honest and free in their responses, including expressing hostilities or discomfort, than students would be in the traditional classroom.

With regard to anonymity and privacy, Tables 7 and 8 reveal how students felt about using pseudonyms. Seven more females than males self reported that the use of pseudonyms did affect their participation in CMC; although the transcripts do not reveal major distinctions by gender in terms of discourse production.

Table 7. Question #5: "Did the use of pseudonyms affect how you conversed?"

Gender	Yes	No	Indecisive
Females	17	6	
Males	11	10	2

If students responded that pseudonyms did affect their on-line conversation, students provided the answers described in Table 8.

Data from Table 8 reveals that approximately one fourth of the 45 students felt comfortable with the use of pseudonyms and that over half or at least 28 of the 45 students

voluntarily responded that they felt less inhibited as a result of participating in CMC. An interesting note here is that students did not exhibit any flaming in the transcripts even though they voluntarily self-reported that they felt less inhibited. In other words, students reported in this open-ended questionnaire that they did not feel threatened or intimidated by the uniqueness of the computer networked environment. Based on the questionnaire results, students were comfortable with their discourse while using CMC.

Table 8. Question #4: "How did the use of pseudonyms affect your on-line conversation?"

Types of responses	Number of students	Female	Male
1. I was comfortable	11	7	4
2. Not afraid	5	2	3
3. didn't feel stupid	1	1	0
4. could be more open	5	3	2
5. less reserved	6	4	2

Question #5, as described in Table 9, provided students with the opportunity to respond to the open-ended question as to whether pseudonyms affected their CMC. Although the question was open-ended, students responses essentially fell into one of two categories. Most students expressed no change in their discourse and at least one male said he was not afraid. In this table, twice as many males (10) as females (4) expressed the fact that anonymity did not affect their on-line conversation.

Table 9. Question #5: "How did the use of pseudonyms not affect your on-line conversation?"

Type of response	# Students	Female/Male	
1. no change	14	4	10
2. not afraid	1	0	1

An interesting side note regarding Table 9 is that the same number of males in Table 7 self-reported that anonymity did affect their on-line conversation. In other words, approximately half of the males self reported that anonymity did affect on-line conversation and half of the males self reported that anonymity did not affect their on-line conversation.

Question #6 Collaboration within the computer network environment provides safety with the use of pseudonyms and anonymity and requires social interaction between participants. The purpose of the question #6 was to elicit student observations and comparisons about the traditional classroom and the CMC environment in an attempt to triangulate the data. Question #6 was designed for the purpose of giving students another opportunity to express any hostilities or discomfort with the computer network by comparing the computer classroom with the traditional classroom. Question #6 was one more opportunity for students to express any hostilities towards the computer network; however, students essentially self-reported that the computer environment was more productive in comparison with the traditional classroom. Obviously in this case, students did not self report that the computer network was a threatening environment.

Results Thirty-eight students out of 45 students said that the computer collaboration was different from the traditional collaboration classroom whereas three said there was no difference. Table 10 provides data regarding students' comparisons of a

traditional classroom where pseudonyms are rarely, if ever, provided and the computer networked classroom that uses CMC.

Students' open-ended responses to question #6 reveal interesting results regarding gender. For instance, four more females than males thought the classroom activity was more productive in the computer network environment than in a traditional classroom setting; although five males (0 females) self reported that they enjoyed the anonymity. One explanation for this gender disparity may be supported by the literature that suggests females enjoy an egalitarian environment more than males.

Table 10. Students' responses regarding the CMC classroom and the traditional classroom

Types of responses	Number of students	Female	Male
1. More productive	20	12	8
2. different	4	2	2
3. easier to talk	3	1	2
4. less noise	2	1	1
5. liked anonymity	5	0	5
6. more difficult	2	1	2
7. miscellaneous	2	1	1

Essentially the questionnaire results support the hypothesis that students were not inhibited. In fact, about half of the students felt that CMC was more productive than a traditional classroom. The open-ended nature of the questionnaire provided numerous opportunities for students to voluntarily express in numerous answers any discomfort or hostility regarding participating in CMC. Based on the self-reported results that students

experienced no major problems with CMC, the research question of how students linguistically compensated can be more clearly examined in terms of politeness strategies. Students displayed politeness strategies as a mechanism to maintain coherent and rational discourse in order to complete the assigned task. One explanation for the absence of flaming in this study may be related to the fact that students were not intimidated or threatened while participating on the computer network. Although students were given the opportunity to flame while communicating on the computer network and students were given the opportunity to self report any discomfort, the overwhelming conclusion from the data is that students essentially enjoyed CMC and used politeness strategies as a means of accomplishing their task.

Anonymity

A unique characteristic of this study is that males and females were communicating anonymously. Would a similar study whereby students communicated with their known social identities reveal similar results? More qualitative and quantitative studies are needed to confirm or disconfirm some of the literature's contradictory studies. In addition, comparative studies are needed to validate some of the claims of this study with regard to gender issues. For example, a comparable study of students using their social identity in CMC would shed light on whether or not anonymity affected the frequency of politeness strategies.

However, the use of pseudonyms played a major role in this study because all students participated under unique circumstances and based on the questionnaire results, students did not self report any strong discomfort with using pseudonyms. In fact, a large number of students liked the fact that their social identity remained unknown throughout the classroom activity because they felt "empowered," according to Barker and Kemp.

Students enjoyed the fact that they could speak "without people getting mad." They "didn't have to worry about what others thought." It was "easier to talk" and they were "not nervous."

I doubt if any students had ever participated in communication where all participants remained anonymous for any extended length of time; consequently, this was probably a unique and different experience for the students. An interesting aspect of this study is that the issue of anonymity did not appear to prohibit students from exhibiting politeness strategies that are typically employed in social situations where social identity guides the interaction. In other words, students were polite to their anonymous peers. As stated earlier, however, the question of what politeness strategies represent in terms of social distance remains unanswered: Were students more polite to their anonymous peers than they would have been to socially identified peers?

The questionnaire results reveal that students' attitudes towards the CMC classroom were generally favorable. Students did enjoy the anonymity that the electronic computer buffer provided for them. Despite the fact that anonymity could have been a hindrance to their interaction with one another, students did like the fact that their personal social identity remained unknown and they did not engage in flaming one another.

Computer etiquette or the use of politeness strategies remains an unexplored area with regard to CMC; although the issue of politeness or mitigating discourse within the framework of CMC appears to be a growing concern among electronic mail users. For example, some electronic mail communities have expressed frustration at the apparent lack of an electronic etiquette manual that provides boundaries that participants should maintain.

Mitigating discourse markers, typical of oral discourse, appeared throughout the corpus of the collected text. The degree of politeness, however, is inconclusive because of contradictory studies (Holtgraves-higher degree of politeness with strangers and Baxter's

higher degree of politeness with close friends). Although students are displaying politeness strategies with their anonymous classmates, there are no current studies in which to compare the degree of politeness and what it represents. One question that remains unanswered is whether or not students display politeness strategies because they do not know the social identity of their peers. Or whether students display the same degree of politeness strategies when they know the social identity of their classmates.

Conclusion

One of the most important aspects of this study is whether or not politeness strategies that students used during this assignment are typical of a computer classroom interaction. Although this study is not definitive, it does provide a fleeting glimpse into a computer-based freshman composition classroom.

This study does not support the notion that flaming among students is problematic within the computer networked classroom. Some speculative reasons as to why this task or activity worked so well for students in my study may relate to the structure of the assignment. In terms of guidance for the students, verbal and written instructions were given to students before they entered the computer networked classroom. Additionally, the structure of the students' task required that students prepare for the computer class assignment by studying the assigned readings and preparing notes before class. When students finally came to the computer classroom, instructions were once again given at the beginning of the class period on each individual computer screen so that students were reminded about the purpose and goal of the class assignment.

With regard to the topic under discussion by students who participated in the study, students did not appear threatened by the issue of extending the American academic school year even though most students expressed an opinion regarding the issue. The topic

seemed sensitive in nature, at least insofar as students were interested in the topic, because they did express their opinions to one another; yet students did not flame one another when they were in disagreement.

The results of this study may be foundational for other studies in examining how students linguistically compensate for the lack of social cues enjoyed by participants of social interaction. Perhaps some further research in the following areas could enlighten researchers regarding CMC or this new emergent register:

- * What is the relationship to a discussion topic and gender discourse production?
- * What is the relationship of a discussion topic to flaming by students?
- * What type of structure is required for students to experience success in CMC assignments?
- * How much guidance by the instructor, if any, is necessary in order for students to effectively interact with one another in CMC?
- * How do students respond to face-threatening acts in CMC?

Nevertheless, this study establishes that students communicating with CMC as the only mode of communication did utilize face-saving discourse strategies that are common to conversational interaction in order to maintain CMC discourse. Politeness strategies were utilized by CMC participants as mitigating strategies to avoid any face-threatening acts that may have occurred in CMC.

Few studies have quantified discourse markers or examined how participants in CMC compensate for the altered situational context of communicating without the traditional social cues of social interaction. This study has attempted to examine how CMC participants linguistically compensate for the absence of social cues typically enjoyed by participants of social interaction. Based on this study, students participating in CMC within a computer networked environment did attempt to avoid face-threatening acts and

Few studies have quantified discourse markers or examined how participants in CMC compensate for the altered situational context of communicating without the traditional social cues of social interaction. Future research that would examine the isolation of males from females may provide additional insight as to whether or not CMC requires that participants use certain conventions of politeness strategies that otherwise would not be used as frequently, if at all, in social interaction.

BIBLIOGRAPHY

- Bakhtin, Mikhail. "The Problem of Speech Genres." *Speech Genres and Other Late Essays*. Trans. Vern W. McGee. Austin: U of Texas P (1986): 60-102.
- Barker, Thomas T. and Kemp, Fred O. "Network Theory: A Postmodern Pedagogy for the Writing Classroom." *Computers and Community*. Portsmouth: Boynton/Cook Publishers (1989): 1-27.
- Barrett, Michael J. "The Case for More School Days." *The Atlantic Monthly* (November 1990): 78-81.
- Batson, Trent. "Teaching in Networked Classrooms." *Computers in English and the Language Arts*. Eds. Cynthia L. Selfe, Dawn Rodrigues, William R. Oates. National Council of Teachers of English (1989): 247-255.
- Baumlin, James S. "Decorum, Kairos, and the 'New' Rhetoric." *PRE/TEXT* 5 (1987):
- Bitzer, Lloyd F. "The Rhetorical Situation." *Philosophy and Rhetoric*. 1.1 (1968): 1-14.
- Bizzell, Patricia and Bruce Herzberg, Eds. *The Rhetorical Tradition*. Boston: St. Martin's Press. 1990.
- Beard, John D., Jone Rymer and David L. Williams. "An Assessment System for Collaborative Writing Groups: Theory and Empirical Evaluation." *Journal of Business and Technical Communication* 3.2 (1989): 29-51.
- Bridwell-Bowles, Lillian. "Designing Research on Computer-Assisted Writing." *Computers and Composition* 7.1 (1990) 79-91.
- Brown, Gillian and George Yule. *Discourse Analysis*. New York: Cambridge UP, 1983.
- Brown, Penelope and Stephen C. Levinson. *Politeness: Some Universals in Language Usage*. New York: Cambridge UP, 1978.
- Bruffee, Kenneth. "Collaborative Learning and the 'Conversation of Mankind.'" *College English* 46 (1984): 635-652.
- Button, Graham. "Going Up a Blind Alley: Conflating Conversational Analysis and Computational Modelling." Ed. by Paul Luff, Nigel Gilbert and David Frohlich. *Computers and Conversation*. New York: Academic P, 1990, 67-90.

- Carter, Michael. "Stasis and Kairos; Principles of Social Construction in Classical Rhetoric." *Rhetoric Review* 7.1 (1988): 97-112.
- Coulthard, Malcolm. *An Introduction to Discourse Analysis*. New York: Longman, 2nd edition, 1985.
- DiMatteo, Anthony. "Communication, Writing, Learning: An Anti-Instrumentalist View of Network Writing." *Computers and Composition* 8.3 (1991): 5-19.
- Duin, Ann Hill. "Computer-Supported Collaborative Writing: The Workplace and the Writing Classroom." *Journal of Business and Technical Communication* 5.2 (1991): 123-150.
- Ewald, Helen Rothschild and Donna Stine. "Speech Act Theory and Business Communication Conventions." *Journal of Business Communication* 20.3 (1983): 13-25.
- Faigley, Lester. "Subverting the Electronic Workbook: Teaching Writing Using Computers." *The Writing Teacher as Researcher*. Eds. Donald Daiker and Max Morenberg. Portsmouth: Boynton/Cook Publishers (1990):290-311.
- Ferrara, Kathleen, Hans Brunner and Greg Whittemore. "Interactive Written Discourse as an Emergent Register." *Written Communication* 8.1 (1991): 8-34.
- Finholt, Tom, Lee Sproull and Sara Kiesler. "Communication and Performance in ad hoc Task Groups." *Intellectual Teamwork: Social and Technological Foundations of Cooperative Work*. Ed. by Jolene Galegher, Robert E. Kraut and Carmen Egido. Hillsdale: Lawrence Erlbaum Associates, Publishers. 1990. 291-326.
- Flores, Mary J. "Computer Conferencing: Composing a Feminist Community of Writers." *Computers and Community*. Portsmouth: Boynton/Cook Publishers (1990): 106-117.
- Forman, Janis. "Novices Work on Group Reports: Problems in Group Writing and in Computer Supported Group Writing." *Journal of Business and Technical Communication* 5.1 (1991): 48-75.
- Forman, Janis. "Leadership Dynamics of Computer-Supported Writing Groups." *Computers and Composition* 7.1 (1990): 35-46.

- Good, David. "Repair and Cooperation in Conversation." Ed. by Paul Luff, Nigel Gilbert and David Frohlich. *Computers and Conversation*. New York: Academic P, 1991. 7-38.
- Grice, H.P. "Logic and Conversation." *Syntax and Semantics: Speech Acts*. New York: Academic P, 1987.
- Gronbeck, Bruce E. and Thomas Farrell and Paul A. Soukup. *Media, Consciousness and Culture: Explorations of Walter Ong's Thought*. Newbury Park: Sage Publications, 1991.
- Hagge, John and Charles Kostelnick. "Linguistic Politeness in Professional Prose." *Written Communication* 6.3 (1989): 312-339.
- Hartman, Karen, Christine M. Neuwirth, Sara Keisler, Lee Sproull, Cynthia Cochran, Michael Palmquist and David Zubrow. "Patterns of Social Interaction and Learning to Write." *Written Communication* 8.1 (1991): 79-113.
- Hawisher, Gail and Cindy Selfe. "Letter from the Editors" *Computers and Composition* 7.S1 (1990): 6.
- Heim, Michael. *Electric Language: A Philosophical Study of Word Processing*. New Haven: Yale UP, 1987.
- Janda, Mary Ann. "Collaboration in a Traditional Classroom Environment." *Written Communication* 7.3 (1990): 291-315.
- Kiesler, Sara, Jane Siegel and Timothy W. McGuire. "Social Psychological Aspects of Computer-Mediated Communication." *Computerization and Controversy: Value Conflicts and Social Choices*. Eds. Charles Dunlop and Rob Kling. San Diego: Academic Press, Inc., Harcourt Brace Jovanovich, Publishers, 1991.
- Kinneavy, James L. "The Relation of the Whole to the Part in Interpretation Theory and in the Composing Process." *Linguistics, Stylistics and the Teaching of Composition*. Ed. by Donald McQuade. New York: Conference on Language Style, 1979. 1-23.
- Kinneavy, James L. "Kairos: A Neglected Concept in Classical Rhetoric." *Rhetoric and Praxis*. Ed by Jean Dietz Moss. Washington, DC: The Catholic U of America P, 1986. 79-105.

Kramarae, Cheris. Ed. *Technology and Women's Voices: Keeping in Touch*. New York: Routledge & Kegan Paul, 1988.

Lakoff, Robin Tolmach. *Talking Power*. New York: Basic Books/Harper Collins Publishers, 1990.

Lauer, Janice M. and J. William Asher. *Composition Research: Empirical Designs*. New York: Oxford UP, 1988.

Lay, Mary M. "Interpersonal Conflict in Collaborative Writing: What Can We Learn From Gender Studies." *Journal of Business and Technical Communication* 3.2 (1989): 5-28.

Limaye, Mohan R. and Roger D. Cherry. "Pragmatics, 'Situated' Language." *Journal of Technical and Business Communication* 3.1 (1987): 68-88.

Lunsford, Andrea A. and Lisa Ede. *Singular Texts, Plural Authors: Perspectives on Collaborative Writing*. Southern Illinois U, 1990.

Lunsford, Andrea A. and Lisa Ede. "Rhetoric in a New Key: Women and Collaboration." *Rhetoric Review* 8.2 (1990): 234-241.

Mabrito, Mark. "Annotated Bibliography of Resources in Computer Networking." *Computers and Composition* 7.3 (1990):23-39.

McKnight, Cliff, Andrew Dillon and John Richardson. *Hypertext in Context*. New York: Cambridge UP, 1991.

Moran, Charles. "We Write, But Do We Read?" *Computers and Composition* 8.3 (1991): 51-61.

Murray, Denise E. "The Composing Process for Computer Conversation." *Written Communication* (January 1991): 35-55.

O'Donnell, Angela, Donald F. Dansereau, Thomas R. Rocklin, Celia O. Larson, Velma I. Hythecker, Michael D. Young and Judith G. Lambiotte. "Effects of Cooperative and Individual Rewriting on an Instruction Writing Task." *Written Communication* 4.1 (1987): 90-99.

Ong, Walter. *Orality and Literacy: The Technologizing of the Word*. New York: Methuen, 1982.

- Ong, Walter J. *Rhetoric, Romance and Technology: Studies in the Interaction of Expression and Culture*. London: Cornell UP, 1971.
- Peyton, Joy Kreeft. "Technological Innovation Meets Institution: Birth of Creativity or Murder of a Great Idea?" *Computers and Composition* 7.1 (1990): 15-32.
- Poster, Mark. *The Mode of Information: Poststructuralism and Social Context*. Cambridge: Polity P, 1990.
- Ramage, John D. and John C. Bean. *Writing Arguments: A Rhetoric with Readings*. New York: Macmillan Publishing Company, 1989.
- Reid, Elizabeth M. "Electropolis: Communication and Community on Internet Relay Chat." Honours Thesis, University of Melbourne, Department of History, 1991.
- Sacks, Harvey, Emanuel A. Schegloff and Gail Jefferson. "A Simplest Systematics for the Organization of Turn-taking for Conversation." *Language* 50.4 (1974): 696-735.
- Schere, Klaus R. and Howard Giles, Eds. *Social Markers in Speech*. Cambridge: Cambridge UP, 1979.
- Schiffrin, Deborah. *Discourse Markers*. New York: Cambridge UP, 1987.
- Selfe, Cynthia and Billie J. Wahstrom. "Computer-Supported Writing Classes" Lessons for Teachers." *Computers in English and the Language Arts* (1989): 257-268.
- Selfe, Cynthia L. and Gail E. Hawisher. "The Rhetoric of Technology and the Electronic Writing Class." *College Composition and Communication* 42.1 (1991): 55-65.
- Selfe, Cynthia L. and Paul R. Meyer. "Testing Claims for On-Line Conferences." *Written Communication* (April 1991): 163-194.
- Stubbs, Michael. *Discourse Analysis: The Sociolinguistic Analysis of Natural Language*. Oxford: Basil Blackwell, 1983.
- Sudol, Ronald A. "The Accumulative Rhetoric of Word Processing." *College English* 53.8 (1990): 920-942.
- Tannen, Deborah. *Talking Voices: Repetition, dialogue, and imagery in conversational discourse*. New York: Cambridge UP, 1989.

- Tebeaux, Elizabeth. "Teaching Professional Communication in the Information Age." *Journal of Business and Technical Communication* 2.2 (1988): 46-58.
- Tebeaux, Elizabeth. "Toward an Understanding of Gender Differences in Written Business Communications: A Suggested Perspective for Future Research." *Journal of Business and Technical Communication* 4.1 (1990): 25-42.
- The Atlantic Monthly Magazine*. (February 1991). Editorial Responses.
- Thompson, Diane. "Electronic Bulletin Boards: A Timeless Place for Collaborative Writing Projects." *Computers and Composition* 7.1 (1990): 43-53.
- Thorne, Barrie, Cheris Kramarae and Nancy Henley, Eds. *Language, Gender and Society*. Rowley: Newbury House Publishers, Inc., 1983.
- Treichler, Paula A. and Cheris Kramarae. "Women's Talk in the Ivory Tower." *Communication Quarterly* 31.2 (Spring 1983): 118-132.
- Werth, Paul, Ed. *Conversation and Discourse: Structure and Interpretation*. London: Croom Helm Ltd. 1981.
- Wolfe, Thia. "The Teacher as Eavesdropper: Listening in on the Language of Collaboration." *The Writing Teacher as Researcher*. Eds. Donald A. Daiker and Max Morenberg. Portsmouth: Boynton/Cook Publishers, 1990: 277-289.
- Wooffitt, Robin. "On the Analysis of Interaction: An Introduction to Conversation Analysis." Ed. by Paul Luff, Nigel Gilbert and David Frohlich. *Computers and Conversation*. New York: Academic P, (1991): 7-38.

APPENDIX A: INSTRUCTIONS AND READING ASSIGNMENT

Toulmin's Model of Argumentation

In preparation for the next class period, please read Michael J. Barrett's article titled "The Case for More School Days" that was published in the 1990 November issue of *The Atlantic*. In addition, read the seven short editorial responses that were published in the February 1991 issue of the same magazine.

After you have read these assigned readings, apply Toulmin's model of argumentation to Barrett's article and the seven short editorial responses.

When you come to the next class in the computer Macintosh lab, be prepared to discuss Toulmin's model with your collaborative group. Your group's assignment will be to apply Toulmin's model of argumentation to Barrett's article and to at least two of the editorial responses. You will be networked together through the FORUM software.

*Call it Huck Finn's law:
The authentic American flourishes in
spite of schooling, not because of it. As applied,
this has meant that American kids
have one of the shortest school years in the Western
world. It shows. Today what Huck Finn
didn't know would hurt him*

THE CASE FOR MORE SCHOOL DAYS

BY MICHAEL J. BARRETT

OFF AND ON FOR THE SURPRISING STRETCH OF FORTY YEARS, BEGINNING IN 1949, the Gallup organization has polled the American public on the delicate subject of whether to lengthen the school year. For many years, though the wording of the question changed, the results held steady: by substantial margins people indicated that they did not like the idea. Even in 1959, during the era of *Sputnik* and intensified concern over what young Americans were learning, 67 percent of those polled were opposed to "increasing the number of days per year spent in school" for high school students, while a mere 26 percent were in favor.

In the 1980s something different began to happen. In line with the growing concern about economic competitiveness, Gallup retooled the question to make explicit comparisons with other countries. Interviewees were told that students in some nations attend school for as many as 240 days a year, compared with 180 in the United States. In light of this, Gallup asked, how do you feel about extending the school year by thirty days, to a total of 210? In 1984, fifty percent were against, 44 percent approved—a finding that, however consistent with past opposition, showed a distinct narrowing of the gap. In 1989 came the breakthrough. A new question maintained the comparative focus: "In some nations students spend about 25% more time in school than do students in the U.S. Would you favor or oppose increasing the amount of time that students in this community spend in school?" Forty-eight percent said they were in favor,



44 percent said they were opposed, and eight percent were undecided.

Read together, these figures record a sea change in public feeling, but the dike has not exactly burst; state legislatures and local school committees have not rushed to do anything dramatic. I can offer a personal perspective on the reasons why. As a Massachusetts state legislator, I discuss education with parents, children, and teachers, and as someone who believes in the need for a dramatic extension of the school year, I hold up the unpopular end of many conversations. Education involves matters intimately familiar to people—their kids, the rhythms of family life, their own memories of school—and everybody has an opinion.

Asked how she and her neighbors would feel about lengthening the school year, a constituent of mine, a parent of three school-aged daughters, stiffens and says, "People don't want their options taken away from them. They want freedom of choice in these things." A student just out of high school, told about the long school year in Japan, says, "I don't want to be Japanese. I like my summers. I work hard enough as it is."

If these soundings and others like them are any guide, America's attachment to the 180-day school year is still strong. In a world already reeling from future shock, the notion of extending the year seems punitive, an assault on the idea of summer itself. It raises the specter of joyless cramming. It implies that American parents have somehow failed their children.

Still, with people worried about the direction of the country, the strength of the economy, and the emerging competition from our friends in Europe and Asia, it is

time to give the matter another look. It is time, too, to examine the peculiarly American roots of the dug-in resistance to change, and to consider how, in an era of short money and diminished confidence in government, the switch to a longer school year might be achieved.

The accumulating data on comparative education, itself a relatively new preoccupation of policy specialists, point up two trends. First, compared with their peers in Asian and European countries, American students stand out for how little they work. Second, compared with Asians and Europeans, American students stand out for how poorly they do.

Bottom Dogs

AS TO THE FIRST: CONSIDER A LIST, GARNERED from a variety of sources, of the varying number of days in a standard school year. This list was hard to put together—which tells us something about the neglect of this subject in U.S. educational circles.

Japan	243	New Zealand	190
West Germany	226-240	Nigeria	190
South Korea	220	British Columbia	185
Israel	216	France	185
Luxembourg	216	Ontario	185
Soviet Union	211	Ireland	184
Netherlands	200	New Brunswick	182
Scotland	200	Quebec	180
Thailand	200	Spain	180
Hong Kong	195	Sweden	180
England/Wales	192	United States	180
Hungary	192	French Belgium	175
Swaziland	191	Flemish Belgium	160
Finland	190		

Of course, bare counts of school days do not tell us everything we might like to know about academic calendars. Japan's Ministry of Education, Science and Culture prescribes a minimum of 210 calendar days of classroom instruction, including half-days on Saturdays. Local school boards have the option of adding more time, and typically call for a total of about 240 days, often using the bulk of the additional days for field trips, sports activities, student festivals, and graduation ceremonies. In the United States the 180-day school year must accommodate field trips, school-wide assemblies, in-service training for teachers, and anything else that needs doing, reducing the real number of days of classroom instruction to something considerably less than 180.

The gap in classroom time between Japan and the United States widens when student attendance at *juku* is taken into account. *Juku* are the private, profit-making tutorial services that have become ubiquitous in Japan since the 1970s. Operating after school and on weekends—but in such a way as to parallel the regular education system—they provide enrichment, preparatory, remedi-

al, and cram courses to an education-hungry young population. By ninth grade more than 47 percent of Japanese students attend *juku*, averaging five hours a week in addition to regular school time.



THE UNITED STATES FACES A TIME-IN-SCHOOL DEFICIT EVERY BIT AS SERIOUS AS THE TRADE DEFICIT AND THE BALANCE-OF-PAYMENTS PROBLEM: EACH YEAR, AMERICAN CHILDREN RECEIVE HUNDREDS OF HOURS LESS SCHOOLING THAN MANY OF THEIR EUROPEAN OR ASIAN MATES, AND THE RESULTING HARM PROMISES TO BE CUMULATIVE AND LASTING.

30 percent of students in British Columbia, 15 percent of Finnish students—but only 13 percent of students in the United States.

Defenders of the status quo also argue a contrary point: not that the United States does well by its great mass of students but that our best students achieve as much as any in the world. Quite apart from the irony of a 200-year-old democracy's arguing in terms of the performance of its elites, the data give defenders shaky grounds for hope. Keeping in mind that the American contingent in the IEA's comparison of serious twelfth-grade math students is only 13 percent of the relevant U.S. age group, consider a representative portion of the results for three subjects:

Student Achievement by Subject Area
(U.S. 12th-Grade Equivalent)

Advanced Algebra	Functions/Calculus	Geometry
1. Hong Kong	1. Hong Kong	1. Hong Kong
2. Japan	2. Japan	2. Japan
3. Finland	3. England/Wales	3. England/Wales
4. England/Wales	4. Finland	4. Sweden
5. Flemish Belgium	5. Sweden	5. Finland
6. Israel	6. New Zealand	6. New Zealand
7. Sweden	7. Flemish Belgium	7. Flemish Belgium
8. Ontario	8. Ontario	8. Scotland
9. New Zealand	9. Israel	9. Ontario
10. French Belgium	10. French Belgium	10. French Belgium
11. Scotland	11. Scotland	11. Israel
12. British Columbia	12. United States	12. United States
13. Hungary	13. Thailand	13. Hungary
14. United States	14. Hungary	14. British Columbia
15. Thailand	15. British Columbia	15. Thailand

The students were tested in three other areas of mathematics as well. The results were similar to those above, with the United States finishing below the average across the board.

In an alternative effort to measure the performance of elites, the IEA calculated the average achievement score of the top one percent of the twelfth-graders in each country. The United States came out as the lowest of any country for which data were available. In other words, our most able students scored lower in algebra than their top-notch peers in any other country. The findings were

little better in calculus, for which the same analysis was conducted.

The IEA did a science assessment in 1983–1986. Among ten-year-olds in fifteen countries where tests were conducted, the Americans ranked eighth. Confirming indications in other studies that American students fall further behind with every passing year in school, our fourteen-year-olds were in a three-way tie, with students from Singapore and Thailand, for fourteenth place among students from seventeen countries. In yet another attempt to evaluate our elites, the IEA surveyed the scores of a special group of secondary school pupils who could be considered advanced science students: seniors pursuing a second year of study within a particular discipline. In rankings with similar students from twelve other nations, the Americans placed eleventh in chemistry, ninth in physics, and last in biology.

The association between American effort and American results is illuminated by "Opportunity to Learn" studies, which seek to identify the material that has actually been taught to various groups of students and the proportion of the intended curriculum that the teacher has managed to cover. OTL researchers focus on a practical question that puzzles parents and students all over America: Why is it that no class ever seems capable of actually getting through its textbook, or even coming close? Why is so much material covered in a rush, in the closing weeks of the year? Granted, books are big in order to give teachers a choice of lessons, but the sheer volume of material left uncovered is disquieting. Accompanied by Chris Berner, a member of my staff, I was recently "teacher for a day" in a seventh-grade class in Cambridge, Massachusetts. It was the end of the school year. Students reported that they had reached page 126 of a 400-page math text. They were halfway through the social-studies book.

The IEA's data on international math achievement become a little less perplexing when analyzed in accord with OTL principles. OTL researchers asked the students from each country who took part in the exercise, Had the mathematics required to answer each question on the international exam been taught to them at any time in class? The findings were fascinating. The typical Japanese twelfth-grade student had been taught how to solve 92 percent of the problems on the tests for algebra, geometry, and calculus. In England and Wales the comparable figure was 85 percent, in Hungary 67 percent, in Thailand 63 percent—and in the United States only 54 percent.

The Matter of Leadership

WHAT, THEN, IS TO BE DONE? AS THE DEBATE over lengthening the school year is joined, how is public apprehension to be overcome, a public consensus to be formed?

First, there is the matter of leadership. Recall that in the late 1950s, after *Sputnik*, Americans did not balk at being challenged to run a race with the Soviets for world scientific supremacy. In fact, this nation has always reacted well to competitions summed up in muscular imagery by our leaders: Americans run races, go for the gold, vie for championships, all with admirable zest.

But these days the message of civic, political, and intellectual leaders is different. The tone is unrelentingly dour. Americans are not dared to run a race; they are told that the race has already been run, the United States has lost, and they are to blame—because they did not “work harder.” Both the political right and the political left have generated cottage industries centered on the person of the scold, the critic, the moralist. These entrepreneurs of gloom engender a very mixed reaction, because people are ambivalent about being lectured to. When Roger Porter, a presidential aide for economic and domestic policy, labels American education “depressing and uninspiring,” dismay at our prospects dampens our appetite for meeting the challenge. The end-of-the-American-century, fall-of-a-great-power talk has gone too far.

Where education is concerned, the Gallup polls tell us that people are now open to a message of change. Complacency is no longer holding us back. But the tone of the message must be optimistic, and resonant with the American themes that lend themselves to the task of mobilizing for change—specifically, the notions that we have always risen to the challenge of competition, felt free to adapt the good ideas of others, worked like demons when the prize was self-improvement, and had a special knack for exploiting the practical fruits of learning.

Americans are up to the game of international educational competition, but we need to know what the rules are. When the rest of the world plays a twenty-minute

period, American students cannot be expected to rack up as many points in fifteen. Our toughest competitors are, in fact, playing a school year of 220 days or so, with results that bode poorly for America's future. It is up to this country's leaders to get the word out, in a way that inspires rather than dispirits their audiences.

Once these leaders make the effort, they will find that many people are way ahead of them, and not only because of concern about international competition. An entirely different dynamic is

also at work, one that promises to tip popular opinion further in favor of more schooling. Aspects of it were detected by the 1988 Gallup poll on education, in response to the question “Would you favor or oppose the local public schools' offering before-school and after-school programs where needed for so-called latch-key children, that is, those whose parents do not return home until late in the day?”

To those familiar with public resistance to extending the school year and school day, the response was stunning. Seventy percent of the sample were in favor, 23 percent opposed—a spread repeated when Gallup asked the question, in slightly different form, last year.

The forces at work here are formidable. More than 25 million women in the United States have children under the age of thirteen, and most of those women work at least part-time. Latchkey children, who spend some part of the working day at home without adult supervision, arouse particular concern. A 1987 Harris survey indicates that 12 percent of elementary, 30 percent of middle school, and 38 percent of high school students are left to care for themselves after school “almost every day.”

The issue here extends beyond latchkey children to touch all manner of middle-class, working-class, and poor families. Many parents who cover all the bases for their children are doing so just barely, and at a cost in terms of missed wages that they cannot sustain forever. All told, an enormous potential constituency exists for a longer school day, folded into a longer school year.



The Atlantic

Editor
WILLIAM WHITWORTH
Washington Editor
JAMES FALLON

Senior Editors
JACK BEALY, C. MICHAEL CURTIN,
CORY KUNIN, BARBARA WALLRAFF

Managing Editor
CULLEN MURPHY

Art Director
JUDY GARLAN

National Correspondents
KATIE LEISHMAN, NICHOLAS LEMANN

Associate Editors
PETER DAVIDSON (poetry),
SUE PARILLA, MARTHA SPALDING

Staff Writer
PHOEBE LOC ADAMS

Staff Editors
ELINOR APPEL, STEVEN CRAMER (poetry),
ERIC HAAS, AMY MEERER, LUCIE PRINZ

Art Staff
ROBIN GILMORE, BARNES, Associate Art Director
ELIZABETH URRICO, Assistant Art Director
GILLIAN KAHN, Art Assistant

Assistants to the Editors
LESLIE CALDWELL, AVRIL CORNELL,
ANN LEOPOLD, KAREN SONTAG (archives),
KATHRYN SYLVESTER, LOWELL WEISS

Editorial Promotions Manager
SARAH FINNIR ROCKWELL

Contributing Editors
ROY BLOUNT, JR., GREGG EASTERRBROOK,
SEYMOUR M. HERSH, TRACY KIDDER,
MICHAEL LEMMAN, JAMES ALAN MCPHERSON,
CONOR CRUISE O'BRIEN, DAVID OWEN,
THOMAS POWERS, WILLIAM SCHNEIDER,
SANFORD J. UNGAR



Chairman
MORTIMER B. ZUCKERMAN

Vice Chairman and Chief Executive Officer
FRED DRASNER

President and Publisher
IRA ELLENTHAL

Circulation & New Business Development
CINDY J. STILL, Associate Publisher
PETER WATT, Circulation Business Manager
ADRIENNE ISFELHART, Assistant Promotion Manager
MICHAEL P. PRESTO, Director, Retail Marketing

Advertising
JAYNE YOUNG, Associate Publisher
JAMES SHERIDAN, Vice President
DONNA PALMER, Vice President, West Coast
FRANCES V. BROUDY, Advertising Director
MEREDITH WELCH, Marketing Director
DEBORAH B. FAENHAM, Promotion Director
TAYLOR GRAY, Research Director
EDWIN COOPER, Marketing Consultant
MATTHEW BARBA, SARAH BENNISON,
MARA HART FILO, TERRY MCCAFFREY,
LONDA M. NIEPOD

Operations
KIMBERLY SMITH JENSEN, General Manager
JAN MORRIS, Production Director
JOSEPH O'CONNELL, Production Director Emeritus
MARTHA JEVTEVAR, Business Manager
KAREN WESOLOWSKI, Special Projects Manager
SANDRA CACCONE, MICHAEL DRNACH,
RAYMOND FORD, DEBORAH HOFFENBERG,
MICHAEL JONES, LIAM O'MALLEY

Editorial/Business Office
745 Boylston St., Boston, MA 02116, (617) 534-9500

New York Advertising Office
599 Lexington Ave., N.Y., NY 10022, (212) 326-5350

Chicago Christopher Schuba (312) 482-8099
Detroit Marc Hart Fife (313) 353-4000
Los Angeles Donna Palmer (213) 479-4729

LETTERS TO THE EDITOR



LONGER SCHOOL DAYS

In "The Case for More School Days" (November *Atlantic*) Michael J. Barrett provides evidence to refute his own case. Using Hungary as an example, Barrett praises both the larger number of school days in its year and the higher percentage of students receiving a serious math education, leading one to think that Hungarian students had outperformed U.S. students in math. Yet Hungary outperformed the United States in only one of the three mathematical categories identified.

In fact, using the two tables Barrett provides, one finds no relationship between more school days and a better-educated student. Take Japan's school-year length and student achievement, which Barrett continually brings up to support his case. Japan has fifty-eight more school days than Hong Kong. Hong Kong, however, with only fifteen more school days than the United States, surpasses Japan in every category. And Flemish Belgium, which has the fewest school days (160), twenty fewer than the United States, not only outperforms the majority of other countries but also outperforms Israel (192 school days), one of the "four nations noted for their discipline and drive" (Japan is another; West Germany and South Korea, the other two, are conspicuously absent from all three achievement lists).

HENRY WIGGS
West St. Paul, Minn.

As a university instructor, I have noticed that freshmen and sophomores in college have very little mathematical ability. Part of the reason may be that "softer" topics are taught in the high schools instead—driver education, and so forth. However, a more basic reason is that the instructors in many of our high schools do not know *what* to teach, only *how* to teach. In schools of education they learn how to make up a class outline but not what

subject matter to put into it. Courses on teaching methods, rather than subjects like economics, mathematics, and engineering, are stressed. One high school teacher recently told me that she was glad she did not need to take economics and mathematics—they were too hard, she said. In my university classes the education majors rarely rank in the top 25 percent, let alone the top 10 percent.

The so-called schools of education must put a greater emphasis on subject matter and stress the quality of their students.

W. ROBERT BRAZELTON
Professor of Economics
University of Missouri
Kansas City, Mo.

Michael Barrett cites countries with school years longer than ours, but omits saying that most of those countries require fewer years, thus turning their young people loose mercifully early, when nature intended marriage to occur.

He favors algebra and calculus for all. Few will ever use these.

He correlates personal income with amount of education. But, as I wrote in *The College Board Review* (Summer, 1987), "College draws people of higher intelligence and those from richer families. Their lifelong earnings largely reflect these particular factors."

Barrett wants one state to pioneer a longer school year. I'd like some state to pioneer in the other direction: take whole years off compulsory schooling—perhaps do away with it entirely. After all, not all great Americans were intellectually spoon-fed: Washington, Lincoln, Franklin, Jackson, Truman, Edison, Orville Wright, Frank Lloyd Wright, Jack London, Mark Twain—none of these was "well" educated. School requires far too many subjects anyway. Verdi was well trained, but only in music: was that bad?

TERTIUS CHANDLER
Berkeley, Calif.



I would pull my children out of school if Michael J. Barrett's longer school year were adopted. Surely nine months is long enough for those abstractions that may provide convenient structures momentarily but that deaden the imagination. Not abstractions but "the full interplay of emergent values" is needed, as Whitehead put it. He went on to say that "the soul . . . suffers the agonies of claustrophobia [from abstractions]. The transitions of humor, wit, irreverence, play, sleep, and—above all—of art are necessary for it." Barrett gives short shrift to these.

ISAIORE TRASCHIEN
Professor Emeritus of English
Rensselaer Polytechnic Institute
Troy, N.Y.

Neither lengthening the school year nor making any other changes in the schools will solve the educational crisis, because the school system is not the cause of the crisis; it is merely a symptom. It is a symptom of a society that does not value education; a society in which parents plant their children in front of television sets, raise them in

houses without books, and are uninvolved in their education.

BARRY BENNETT
Assistant Professor of Legal Studies
Sangamon State University
Springfield, Ill.

I suggest that "the problem" is in fact "quality, not quantity," a position Michael Barrett debunks. As a parent with three children in public schools, I observe that classes are too large for individualized attention, teaching loads are often too heavy, there's too much administrative baloney with "in-service days" and the like, and, most important, there are too few accomplished teachers in the professional ranks—that is, people who can impart learning skills and information and can inspire children to enjoy learning.

ROBERT J. DIETER
Boulder, Colo.

Michael Barrett's article overlooks why American students do badly, and also a partial solution.

The causes? First, our kids remain terminally unmotivated. Second, our

school system is based on the outmoded *didactic* model, which emphasizes passive *knowing*, mastering factual content for rote memorization. It has yet to adopt the emerging *analytical* model, which teaches thinking, problem-solving, active doing.

No doubt useful for teaching immigrants basic skills a century ago, the didactic model is severely out of date today for Americans, who must now think for a living in a world awash in cheap labor. Barrett accepts wholesale the stolid and heavy model of "recalling mastered material." He doesn't mention the new paradigm of critical-analytical thinking, which might teach students how to handle new and complex situations. True, less content would be covered. But more would be retained, less forgotten over the summer.

BRIAN K. BECK
University of Wisconsin
Whitewater, Wis.

Michael Barrett replies:

Henry Wiggs's analysis involves a misunderstanding of the tables included with my article. The IEA's data on

science and math achievement for various age groups are voluminous. Unfortunately, space permitted me to include only one table of test results, a "representative sampling," for twelfth-graders alone, of three of the six math disciplines surveyed in the 1981-1982 cycle. Wiggs points out interesting anomalies in this table, but he would really need to perform his calculations on the entire body of data.

Arguing simpleminded predictability is not, in any event, my intention. Nothing is simple, I wrote. "Time-and-learning theory finds a statistical relationship between the amount learned . . . and the time spent learning, but it is not a strong one. The reason is that so much else affects the student."

Unfortunately, much of what matters—for example, most of the nine "educational productivity factors" identified by Herbert Walberg—defies easy improvement. The length of the school year is crucial because it can be changed by a straightforward exercise of public will and civic decision-making. If this country could as easily repair the torn fabric of its home life (the

quality of home life being among the productivity factors cited by Walberg), perhaps I would have written about that instead.

APPENDIX B: SAMPLE QUESTIONNAIRE

As a teacher, I am interested in your recent experiences in the Macintosh lab. Would you please answer the following questions?

1. Had you ever used a Mac before we used the lab?

No _____ Yes _____ If yes, how proficient are you?

Expert _____ Experienced _____ Beginner _____
 (18 months or more) (7-17 months) (0-6 months)

2. Do you currently use word processors when writing your papers?

No _____ Yes _____ If yes, what type? _____

3. What did you like about the computer lab experience?

4. What did you dislike about the computer lab experience?

5. Did the use of pseudonyms (assigned set session names) affect how you conversed on the computer? If no, why not? If yes, how did you change your online conversation?

6. Please compare your collaboration experience within the traditional classroom with your online computer collaboration experience. In other words, was there a difference? If no, what were the similarities? If yes, what were the differences?

APPENDIX C: SAMPLE TRANSCRIPT

GROUP 4 4/17/91

FFrom stu:

Hi everyone, how are you all doing? So what do we talk about first?

From aaa:

I thought this article was pretty interesting, who wants to start?

From stu:

Okay, I guess we have to use Toulmin's model. How do we start?

From aaa:

we need to first use the claim.

From yza:

how should we do this?

From stu:

Well, first of all, I totally disagree with lengthening the school days! That would be the worst!

From stu:

I forgot what the claim is!!!! We don't have to start with that, do we?

From yza:

Is there anybody else in group 4?

From aaa:

I THINK THE CLAIM IS THAT AMERICAN SCHOOLS ARE AT THE BOTTOM OF THE SCALE.

From stu:

From yza:

hello?

From stu:

aaa, I think that you are right about the claim being that. What's the next step?

From stu:

yz, Hi, how ya doing? Do we only have 3 people in our group?

From aaa:

ALSO THAT WE NEED TO INCREASE THE NUMBER OF SCHOOL DAYS IN ORDER TO

GET RID OF OUR PROBLEM. I AM ALSO IN TOTAL DISAGREEMENT OF THIS.

From yza:

I,m here, I had a few technical difficulties.

From yza:

School is too long already.

From ccc:

I AM THE FOURTH IN THE GROUP

From aaa:

I THINK WE NOW HAVE TO STATE THE GROUNDS. I GUESS THE GROUNDS IS BY THE FACT THAT BARRET HAS LOOKED AT THE STATISTICS?

From stu:

In the part of the article where the editorials are. I feel the writers of those, rip on the teachers far to much. Why don't they try and teach all those kids who would rather be somewhere else. Like I would right now!

From stu:

Where were you ccc?

From stu:

From yza:

I think the real problem is the matter of quality, not quantity, in education.

From aaa:

SOME OF BARRET'S STATISTICS ARE LIMITED THOUGH. IN SOME OF THE LETTERS TO THE EDITOR, THEY SHOW THAT BARRET HAS ONLY USED THE BAD STATISTICS.

From aaa:

HEY CCC, DO YOU HAVE ANYTHING TO SAY?

From stu:

I'd like to know how longer school years will help in the long run! Students have no patience in the class room anyway, it would be worse if the school year went into the summer. It would be a waste.

From ccc:

I HAD THE WRONG DISK IN AT FIRST, SO IT TOOK ME LONGER TO GET SET UP. I ALSO COPIED DOWN THE QUESTIONS SO I WOULDN'T HAVE TO SCROLL UP AND DOWN THE SCREEN.

From yza:

The stats can be used as the conditions of rebuttal, for example, Hong Kong leads Japan in math and they go to school less often than the Japanese.

From stu:

What are we suppose to be talking about right now? Anyone?

From aaa:

I AGREE WITH STU ON THE RIPPING ON THE TEACHERS. BUT MOST OF THE LETTERS ARE GREAT. THEY SHOW THAT HAVING SHORT SCHOOL YEARS YOU WONT HAVE GREAT SCHOOLS. LOOK AT HONG KONG THEY BEAT OUT JAPAN EVERYTIME AND THEY ONLY HAVE TEN MORE DAYS THAN THE U.S.

From stu:

From aaa:

LONGER SCHOOL YEARS WOULD MAKE KIDS LESS TOLERENT. AND IT WAS ALSO SHOWN THAT JAPAN MAY HAVE THE LONGER SCHOOL YEARS BUT THEY ALSO GET OUT OF SCHOOL AT YOUNGER AGES.

From aaa:

SHOULD WE GO BACK TO TOULMIN'S ARGUMENT?

From stu:

That's a great fact about Hong Kong beating out Japan! 180 days of school is enough, how does 243 days in Japan make them anymore smarter?

From aaa:

hello?

From yza:

I like the present system, summer months are a time to play, not to do homework.

From ccc:

I GLAD SCHOOL IN THE U.S. IS 180 DAYS. A LONG SUMMER VACATION IS ALWAYS SOMETHING TO LOOK FORWARD TO WHEN YOU'RE GETTING SICK OF SCHOOL.

From aaa:

HEY ARE YZA OR CCC STILL THERE?

From stu:

No, I don't think we should go back to Toulman's model. But if you guys want to then allll right! Where were we on the model?

From yza:

I think I,m here>

From aaa:
OPPS, FOGET THE LAST MESSAGE. I AGREE, I LOVE MY SUMMER
VACATIONS.

From stu:
I feel like I'm babbling, what should we talk about.?

From ccc:
I'M HERE ALSO

From yza:
I take it that we all agree on our present system of a summer vacation.

From aaa:
WE DON'T HAVE TO USE TOULMIN, BUT MAYBE IT WILL GIVE US
SOMETHING MORE TO TALK ABOUT. I THINK WE WERE ON THJE
GROUNDS.

From stu:
I want to know who I'm talking to!!!!!!!!!!!!

From stu:
aaa, what do you think the grounds are?

From aaa:
I ALSO LIKE THE LETTER FROM BRIAN BECK, THERE HE STATES THAT
KIDS ARE UNMOTIVATED TO LEARN. I AGREE.

From stu:

From ccc:
WHAT DO YOU MEAN STU, GIVE OUT OUR SEAT #'S OR GIVE OUR
NAMES

From aaa:
I GUESS THE GROUNDS ARE THAT BARRETT HAS THE STATISTICS.?

From yza:
Barret is trying to used the data to show that U.S. sucks because we don't go
to school enough.

From aaa:
ANYONE WANT TO ADD ANYTHING??

From stu:
I agree with that editorial also, aaa, I know I am on of those students. No
patience!

From ccc:

I DON'T THINK ITS THE LENGTH OF SCHOOL THAT MATTERS. I THINK ITS THE ATTITUDE OF THE STUDENTS THATS THE BIG PROBLEM.

From aaa:

I THINK THAT IF THEY REALLY WANT TO IMPROVE OUR SCHOOL SYSTEMS, THEY NEED TO STOP LOOKING AT THE STUPID STATISTICS AND START GETTING GOOD TEACHERS THAT KNOW WHAT THEY ARE TALKING ABOUT.

From stu:

I really have nothing more to add to that. I think we have covered about everything, don't you guys?

From aaa:

I THINK THAT IF THEY REALLY WANT TO IMPROVE OUR SCHOOL SYSTEMS, THEY NEED TO STOP LOOKING AT THE STUPID STATISTICS AND START GETTING GOOD TEACHERS THAT KNOW WHAT THEY ARE TALKING ABOUT.

From yza:

Like I said before, I believe the whole situation evolves around quality,not quantity.

From yza:

I think there was enough said on this topic.

From aaa:

SORRY. I SENT THE MESSAGE TWICE. I GUESS I WANTED TO GET MY POINT ACROSS.

From ccc:

I AGREE WITH STU, WE HAVE COVERED EVERYTHING THAT NEEDS TO BE SAID.

From aaa:

SO WHAT ARE WE GOING TO TALK ABOUT NOW??

From yza:

what else should we talk about?

From stu:

I really don't think it's the teachers who should get the blame laid on them. They are trying to do their job as best they can. Of course there are the teachers who do sit back and do nothing but that's rare.

From ccc:

HOW ABOUT GETTING OUT OF HERE

From aaa:
DOES ANYONE HAVE ANY IDEAS??

From stu:
One question, where is ccc?

From yza:
ccc has an idea.

From stu:
Forget my last message, I found ccc!

From aaa:
I GUESS SOME OF THE TEACHERS ARE GOOD. TO REALLY MAKE OUR
SCHOOLS GOOD MAYBE EVERYONE NEEDS TO GET INVOLVED.

From yza:
where?

From ccc:
WHAT DO YOU MEAN WHERE AM I.

From stu:
What's ccc's idea?

From aaa:
WHAT IS CCC'S IDEA?

From stu:
I'm totally spacing off, sorry!

From aaa:
OH MY GOD STU WE ARE THINKING ALIKE.

From ccc:
GETTING OUT OF HERES THE IDEA

From aaa:
DOES ANYONE WANT TO SAY ANYTHING BEFORE WE HAVE TO LEAVE
THIS FUN TIME?

From stu:
Never mind ccc. Ididn't know if you were still with us, but you are so cool!

From ccc:
IT'S EASY TO SPACE OFF IN THIS CLASS

From aaa:

BYE GUYS

From stu:

Bye you guys. It's been fun!